# TECHNICAL REPORT ECOM -65-GIO ROUND HILL TURBULENCE MEASUREMENTS VOLUME V

Data Tabulations for Runs 78A through 85C

Ву

H. E. Cramer, F. A. Record, and J. E. Tillman

December 1966

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## ECOM

UNITED STATES ARMY ELECTRONICS COMMAND ATMOSPHERIC SCIENCES LABORATORY, RESEARCH DIVISION FORT HUACHUCA, ARIZONA

Grant DA-AMC-28-043-65-GIO Meteorology Department, Massachusetts Institute of Technology, Cambridge, Massachusetts

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## ROUND HILL TURBULENCE MEASUREMENTS

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## ABSTRACT

This volume contains the data summaries for Runs 78A through 85C. Vertical profiles of mean wind speed, air temperature, and soil temperature are presented in Section I. Section I also includes estimates of terms of the heat-budget equation. Turbulence statistics are presented in Section II. For a description of the field experiments and the data-processing procedures, reference should be made to Volume I of this series.

## FOREWORD

In December 1958, the research team at the Round Hill Field Station began a program of field measurements and data analysis dealing with characteristic properties of the energy spectra and cospectra associated with turbulent energy exchange processes within the first 100 meters of the atmosphere. The early phases of the work were devoted to the development of suitable instrumentation and experimental techniques and were carried out under Contract No. DA-36-039-SC-80209 with the U.S. Army Electronic Proving Ground at Fort Huachuca, Arizona. The instrumentation comprised a fast-response system for the simultaneous measurement of fluctuations in wind-velocity components and air-temperature, and a slow response system for supporting meteorological measurements. Measurements of the fluctuations in refractive index were also made during several experiments. During the first phase of the field program, approximately 100 experiments were carried out on a 40-m tower located in a relatively flat terrain. During the second phase of the program, 32 experiments were carried out on a 91-m tower located in a wooded area. Processing of the fast-response measurements was begun by the Meteorology Department at Fort Huachuca and continued by the Massachusetts Institute of Technology under Grant No. DA-AMC-28-043-65-G10.

The purpose of this series of five volumes is to furnish a comprehensive listing of spectral and cospectral calculations and of supporting meteorological data obtained from 76 selected field experiments. An analysis of much of the experimental data was carried out under Grant No. DA-AMC-36-039-64-Gl and will be published separately in a final report.

Publication of these volumes was carried out by the Atmospheric Sciences Research Division at Fort Huachuca under the direction of Mr. Thomas H. Pries. The authors wish to express their appreciation to Mr. Pries for his assistance in the preparation of this series. They also wish to acknowledge the valuable contributions and support of Mr. J.F. Appleby and Mr. W.D. Ohmstede of the Atmospheric Sciences Research Division throughout the research program.

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## SECTION I

VERTICAL PROFILES OF MEAN WIND SPEED, AIR TEMPERATURE, AND SOIL TEMPERATURE; HEAT-BUDGET ESTIMATES AT EARTH-AIR INTERFACE

Vertical profiles of mean wind speed and air temperature to a height of 40 m are presented in Tables 1 and 2, respectively. Wind speed measurements were made with cup anemometers at heights of 0.25, 0.5, 1, 2, 4, 8, 16, 32, and 40 m; wet- and dry-bulb temperatures were observed at each anemometer level, and also at 0.12 m. Soil temperatures are presented in Table 3. Soil thermometers were installed at the two ends of a north-south 40-m sampling line at depths of 1.6, 3.1, 6.2, 12.5, 25.0, 50.0, and 100 cm. Five separate elements 5 cm in length were inserted along the sampling line to provide an integrated temperature of the 0 to -5 cm layer. The profiles of soil temperature are frequently incomplete due to the failure of individual thermometers.

Table 4 presents estimates of the terms of the heat-budget equation

$$R_{o} + S_{o} + Q_{o} + E_{o} = 0$$

at the earth-air interface. Estimates were obtained by the following procedures:

- R, the net effect of all radiative processes, was assumed equivalent to the net radiation measured by the Beckman-Whitley and/or Fritschen net-radiometers.
- 2. S, the vertical flux of heat in the soil, was determined from the heat flux through the -5 cm level, the change in temperature of the 0 to -5 cm layer of the soil, and the heat capacity of the soil within the 0 to -5 cm layer. The heat flux through the -5 cm level was measured by three Beckman-Whitley heat plates equally spaced along the sampling line.
- 3. Q, the vertical flux of heat in the atmosphere was assumed equal to the heat flux determined from the 16-m fast-response temperature and wind data.
- 4. E, the heat equivalent of the evaporative flux of moisture in the atmosphere, was obtained by determining the flux required to balance the heat-budget equation.

TABLE 1

VERTICAL PROFILES OF MEAN WIND SPEED\*

| Run No. Date Time (EST) | 78A<br>10-25-62<br>0806-0850 | 79<br>10-29-62<br>1602-1718 | 80A<br>11-1-62<br>2215-2315 | 81A<br>11-1-62<br>2332-0046 | 81B<br>11-2-62<br>0046-0202 |
|-------------------------|------------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| Height (m)              |                              | Ū                           | (m sec <sup>-1</sup> )      |                             | 1                           |
| 40                      | 3.55                         | 4.64                        | 5.16                        | 4.88                        | 6.10                        |
| 32                      | 3.51                         | 4.33                        | 4.53                        | 4.52                        | 5.36                        |
| 16                      | 3.44                         | 3.68                        | 3.22                        | 3.38                        | 3.85                        |
| Ma 1 8                  | 3.26                         | 3.21                        | 2.46                        | 2.58                        | 2.99                        |
| 4                       | 3.10                         | 2.65                        | 2.06                        | 2.12                        | 2.55                        |
| 2                       | 2.79                         | 2.51                        | 1.56                        | 1.54                        | 2.05                        |
| -A 1-1                  | 2.66                         | 2.22                        | 1.32                        | 1.23                        | 1.73                        |
| 0.50                    | 2.38                         | 1.89                        | 0.75                        | 0.69                        | 1.24                        |
| 0.25                    | 1.80                         | 1.30                        | 0.50                        | 0.50                        | 0.76                        |
| Run No.                 | 81C                          | 82A                         | 82C                         | 82D                         | 82E                         |
| Date<br>Time (EST)      | 11-2-62<br>0213-0318         | 11-2-62<br>0356-0511        | 11-2-62<br>0642-0743        | 11-2-62<br>0800-0915        | 11-2-62<br>0916-1025        |
| Height (m)              |                              | Ū                           | (m sec <sup>-1</sup> )      |                             |                             |
| 40                      | 6.44                         | 6.47**                      | 4. 17**<br>3. 28**          | 5.18**                      | 5.57**                      |
| 32                      | 5.44                         | 5.23**                      | 3.28**                      | 4.37**                      | 4.87**                      |
| 16                      | 3.87                         | 3.68                        | 2.83                        | 4.00**                      | 4.87**<br>4.48**            |
| 8                       | 3.08                         | 2.91                        | 2.41                        | 4.18                        | 4.76                        |
| 4                       | 2.64                         | 2.48                        | 2.03                        | 3.87                        | 4.42                        |
| 2                       | 2.18                         | 1.97                        | 1.60                        | 3.57                        | 4.11                        |
| ī                       | 1.92                         | 1.75                        | 1.41                        | 3.27                        | 3.76                        |
| 1                       |                              |                             |                             |                             |                             |
| 0.50                    | 1.46                         | 1.29                        | 0.97                        | 2.81                        | 3.25                        |

<sup>\*</sup>Values at 0.25 m and 0.5 m were measured with low-inertia cup anemometers; standard large cup anemometers were used at all other heights.

<sup>\*\*</sup>Anemometer exposure poor for prevailing wind direction.

TABLE 1 (Continued)

| Run No.<br>Date<br>Time (EST) | 84A<br>11-6-62<br>1246-1401 | 84B<br>11-6-62<br>1401-1513 | 85A<br>11-16-62<br>1116-1231 | 85B<br>11-16-62<br>1254-1347 | 85C<br>11-16-62<br>1358-1503 |
|-------------------------------|-----------------------------|-----------------------------|------------------------------|------------------------------|------------------------------|
| Height (m)                    |                             | Ū                           | (m sec <sup>-1</sup> )       |                              |                              |
| 40                            | 5.89                        | 5.56                        | 7.51                         | 7.47                         | 8.57                         |
| 32                            | 5.76                        | 5.31                        | 7.32                         | 7.36                         | 8.15                         |
| 16                            | 5.48                        | 5.02                        | 6.99                         | 6.88                         | 7.53                         |
| 8                             | 5.02                        | 4.60                        | 6.48                         | 6.34                         | 6.90                         |
| 4                             | 4.54                        | 4.22                        | 5.94                         | 5.84                         | 6.42                         |
| 2                             | 4.17                        | 3.81                        | 5.51                         | 5.36                         | 5.87                         |
| 1.                            | 3.79                        | 3.46                        | 4.97                         | 4.83                         | 5.26                         |
| 0.50                          | 3.30                        | 3.00                        | 4.48                         | 4.33                         | 4.70                         |
| 0.25                          | 2.64                        | 2.39                        | 3.59                         | 3.47                         | 3.78                         |

TABLE 2  $\begin{tabular}{lllll} \hline VERTICAL PROFILES OF DRY-BULB TEMPERATURES $T_{W}$ & \\ \hline & AND WET-BULB TEMPERATURES $T_{W}$ & \\ \hline \\ \hline \end{tabular}$ 

| Run No. Date Time (EST)       | 78A<br>10-25-62<br>0806-0850   | 79<br>10-29-62<br>1602-1718  | 80A<br>11-1-62<br>2215-2315  | 81A<br>11-1-62<br>2332-0046  | 81B<br>11-2-62<br>0046-020                                     |
|-------------------------------|--|--|--|--|--|
| Height (m)                    |  |  | T <sub>D</sub> , T <sub>W</sub> (C)  |  |  |
| 40                            | 4.3(m)   | 5.5(1.1)   | 5.9(3.1)   | 5.5(2.9)   | 4.8(2.6  |
| 32                            | 4.4(1.4)   | 5.6(1.1)   | 5.8(3.1)   | 5.4(3.0)   | 4.6(2.5  |
| 16                            | 4.5(1.6)   | 5.7(1.3)   | 5.4(2.9)   | 4.9(2.7)   | 4.0(2.2  |
| 8                             | 4.6(1.5)   | 5.5(1.0)   | 5.2(2.7)   | 4.3(2.5)   | 3.6(1.9)   |
| 4                             | 4.7(1.6)   | 5.3(0.9)   | 4.8(2.5)   | 3.8(2.0)   | 3.2(1.6  |
| 2                             | 4.9(2.0)   | 5.0(0.9)   | 4.2(2.3)   | 3.0(1.6)   | 2.7(1.4  |
| 1                             | 5.0(2.2)   | 4.6(0.5)   | 3.4(2.0)   | 2.0(0.9)   | 2.1(1.0  |
| 0.50                          | 5.2(2.3)   | 4.2(0.6)   | 3.0(1.6)   | 1.4(0.5)   | 1.7(0.7  |
| 0.25                          | 5.4(2.6)   | 4.0(0.6)   | 2.5(1.3)   | 0.9(0.2)   | 1.4(0.6  |
| 0.12                          | 5.5(2.7)   | 3.8(0.6)   | 2.2(1.2)   | 0.6(0.1)   | 1.1(0.4  |
|                               |  |  |  |  |  |
| Run No.                       | 81C  | 82A  | 82C  | 82D  | 82E  |
| Date                          | 11-2-62  | 11-2-62  | 11-2-62  | 11-2-62  | 11-2-62  |
| Time (EST)                    | 0213-0318  | 0356-0511  | 0642-0743  | 0800-0915  | 0916-102   |
|                               |  |  | m m (a)  |  |  |
| Height (m)                    |  |  | $\underline{T_D}$ , $\underline{T_W}$ (C)  |  |  |
| Height (m) 40                 | 4.2(2.2)   | 3.6(1.6)   | $\frac{1_{D}, 1_{W}(C)}{2.9(1.0)}$   | 4.9(2.2)   | 5.6(2.6  |
|                               | 4.2(2.2)<br>3.8(2.1)   | 3.6(1.6)<br>3.2(1.5)   |  | 4.9(2.2)<br>5.1(2.5)   | 5.6(2.6<br>5.8(3.0   |
| 40                            |  |  | 2.9(1.0)   |  | 5.8(3.0  |
| 32                            | 3.8(2.1)   | 3.2(1.5)   | 2.9(1.0)<br>2.8(1.1)   | 5.1(2.5)   | 5.8(3.0<br>6.1(3.5   |
| 40<br>32<br>16<br>8           | 3.8(2.1)<br>3.2(1.7)   | 3.2(1.5)<br>2.6(1.2)   | 2.9(1.0)<br>2.8(1.1)<br>2.7(1.2)   | 5.1(2.5)<br>5.4(2.9)   | 5.8(3.0<br>6.1(3.5<br>6.2(3.1                                  |
| 40<br>32<br>16                | 3.8(2.1)<br>3.2(1.7)<br>2.9(1.5)                                     | 3.2(1.5)<br>2.6(1.2)<br>2.3(1.0)                                     | 2.9(1.0)<br>2.8(1.1)<br>2.7(1.2)<br>2.4(0.9)                                     | 5.1(2.5)<br>5.4(2.9)<br>5.4(2.6)                                     | 5.8(3.0<br>6.1(3.5<br>6.2(3.1<br>6.4(3.2                       |
| 40<br>32<br>16<br>8<br>4      | 3.8(2.1)<br>3.2(1.7)<br>2.9(1.5)<br>2.6(1.3)                         | 3.2(1.5)<br>2.6(1.2)<br>2.3(1.0)<br>2.0(0.7)                         | 2.9(1.0)<br>2.8(1.1)<br>2.7(1.2)<br>2.4(0.9)<br>2.0(0.7)<br>1.7(0.8)             | 5.1(2.5)<br>5.4(2.9)<br>5.4(2.6)<br>5.5(2.6)<br>5.6(3.2)             | 5.8(3.0<br>6.1(3.5<br>6.2(3.1<br>6.4(3.2<br>6.6(3.7            |
| 40<br>32<br>16<br>8<br>4      | 3.8(2.1)<br>3.2(1.7)<br>2.9(1.5)<br>2.6(1.3)<br>2.3(1.2)             | 3.2(1.5)<br>2.6(1.2)<br>2.3(1.0)<br>2.0(0.7)<br>1.6(0.6)<br>1.1(0.2) | 2.9(1.0)<br>2.8(1.1)<br>2.7(1.2)<br>2.4(0.9)<br>2.0(0.7)<br>1.7(0.8)<br>1.2(0.3) | 5.1(2.5)<br>5.4(2.9)<br>5.4(2.6)<br>5.5(2.6)<br>5.6(3.2)<br>5.8(3.3) | 5.8(3.0<br>6.1(3.5<br>6.2(3.1<br>6.4(3.2<br>6.6(3.7<br>6.9(4.0 |
| 40<br>32<br>16<br>8<br>4<br>2 | 3.8(2.1)<br>3.2(1.7)<br>2.9(1.5)<br>2.6(1.3)<br>2.3(1.2)<br>1.8(0.8) | 3.2(1.5)<br>2.6(1.2)<br>2.3(1.0)<br>2.0(0.7)<br>1.6(0.6)             | 2.9(1.0)<br>2.8(1.1)<br>2.7(1.2)<br>2.4(0.9)<br>2.0(0.7)<br>1.7(0.8)             | 5.1(2.5)<br>5.4(2.9)<br>5.4(2.6)<br>5.5(2.6)<br>5.6(3.2)             | 5.8(3.0<br>6.1(3.5<br>6.2(3.1<br>6.4(3.2<br>6.6(3.7            |

<sup>\*</sup>Wet-bulb temperatures are enclosed in parentheses and missing values are denoted by m.

TABLE 2 (Continued)

| 2 2 4 0 5 | $^{\mathrm{T}}_{\mathrm{D}}$   | , T <sub>w</sub> (C)   |  |  |
|-----------|--|--|--|--|
| 2 2/ 0 5  |  | **   |  |  |
| 2.3(-0.5) | 2.0(-0.8)  | 8.7(3.0)   | 10.2(4.1)  | 11 0// =>  |
| 2.4(-0.4) | 2.1(-0.8)  | 8.8(3.2)   | 10.4(4.3)  | 11.2(4.5)  |
| 2.6(-0.1) | 2.3(-0.5)  | 9.1(3.7)   | 10.5(4.7)  | 11.4(4.6)  |
|           | •  | •  |  | 11.4(5.1)  |
|           | , ,  |  |  | 11.4(4.6)  |
| •         | •  | • •  |  | 11.4(m)  |
| •         | •  | •  |  | 11.5(4.8)  |
|           |  |  |  | 11.5(4.9)  |
| •         |  |  |  | 11.5(5.1)  |
| 3.1(0.5)  | 2.5(-0.1)  | 10.7(4.6)  | 11.6(5.2)<br>11.7(5.3)   | 11.6(5.1)<br>11.7(5.1)   |
|           | 2.7(-0.1)<br>2.7(-0.1)<br>2.8(0.1)<br>2.8(0.2)<br>2.9(0.2)<br>3.0(0.5)<br>3.1(0.5) | 2.7(-0.1) 2.3(-0.5)<br>2.7(-0.1) 2.3(-0.5)<br>2.8(0.1) 2.4(-0.3)<br>2.8(0.2) 2.4(-0.3)<br>2.9(0.2) 2.4(-0.2)<br>3.0(0.5) 2.5(-0.1) | 2.7(-0.1) 2.3(-0.5) 9.2(3.4)<br>2.7(-0.1) 2.3(-0.5) 9.3(m)<br>2.8(0.1) 2.4(-0.3) 9.6(3.7)<br>2.8(0.2) 2.4(-0.3) 9.9(3.9)<br>2.9(0.2) 2.4(-0.2) 10.2(4.3)<br>3.0(0.5) 2.5(-0.1) 10.5(4.5) | 2.7(-0.1) 2.3(-0.5) 9.2(3.4) 10.6(4.4)<br>2.7(-0.1) 2.3(-0.5) 9.3(m) 10.7(m)<br>2.8(0.1) 2.4(-0.3) 9.6(3.7) 10.9(4.7)<br>2.8(0.2) 2.4(-0.3) 9.9(3.9) 11.1(4.7)<br>2.9(0.2) 2.4(-0.2) 10.2(4.3) 11.3(5.1)<br>3.0(0.5) 2.5(-0.1) 10.5(4.5) 11.6(5.2) |

TABLE 3

VERTICAL PROFILES OF SOIL TEMPERATURE

| Run No.            | 78               | BA               | 7                | 9                | 80              | DA             |
|--------------------|------------------|------------------|------------------|------------------|-----------------|----------------|
| Date<br>Time (EST) | 10-25-62<br>0758 | 10-25-62<br>0907 | 10-29-62<br>1540 | 10-29-62<br>1721 | 11-1-62<br>2133 | 11-1-6<br>2315 |
|                    |                  |                  | <u>s</u>         | outh Positi      | on              | . —            |
| Depth (cm)         |                  |                  |                  | T (C)            |                 |                |
| 1.6                | 2.8              | 8.6              | 7.9              | 4.1              | 3.3             | 2.1            |
| 3.1                | 1.9              | 8.8              | 8.9              | 5.1              | 3.9             | 2.7            |
| 6.2                | 2.4              | 7.4              | 10.6             | 7.4              | 5.7             | 4.4            |
| 12.5               | 4.3              | 6.6              | 11.5             | 9.4              | 7.7             | 6.6            |
| 25.0               | 8.5              | 8.4              | 11.8             | 11.4             | 10.6            | 10.0           |
| 50.0               | 13.4             | 13.2             | 11.4             | 11.4             | 11.7            | 11.7           |
|                    |                  |                  | <u>N</u>         | orth Positi      | on              |                |
| Depth (cm)         |                  |                  |                  | T (C)            |                 |                |
| 1.6                | 5.7              | 6.9              | 9.3              | 7.9              | 8.1             | 7.4            |
| 3.1                | 6.3              | 7.4              | 10.2             | 9.0              | 8.8             | 8.2            |
| 6.2                | 7.0              | 7.3              | 9.9              | 9.4              | 9.3             | 8.9            |
| 12.5               | 8.7              | 8.7              | 10.5             | 10.3             | 10.4            | 10.0           |
| 25.0               | 10.9             | 10.9             | 10.6             | 11.0             | 11.2            | 11.2           |
| 50.0               | m                | m                | m                | m                | m               | m              |
|                    |                  |                  | Average          | Value for        | Layer           |                |
|                    |                  |                  |                  | T (C)            |                 |                |
| 0-5 cm             | 4.6              | 7.1              | 9.4              | 7.3              | 6.6             | 5.8            |

TABLE 3 (Continued)

| Run No.    | 0.      | LA 81   | LB 8: | 1C          | 82        | 2A      |
|------------|---------|---------|-------|-------------|-----------|---------|
| Date       | 11-1-62 | 11-2-62 |       |             | 11-2-62   | 11-2-62 |
| Time (EST) | 2329    | 0053    | 0209  | 0319        | 0353      | 0518    |
|            |         |         |       | South Po    | sition    |         |
| Depth (cm) |         |         |       | <u>T (</u>  | <u>c)</u> |         |
| 1.6        | 2.1     | 1.3     | 1.0   | 0.6         | 0.6       | 0.2     |
| 3.1        | 2.7     | 1.4     | 1.4   | 1.1         | 1.1       | 0.8     |
| 6.2        | 4.4     | 3.5     | 3.0   | 2.6         | 2.6       | 2.2     |
| 12.5       | 6.6     | 5.7     | 5.2   | 4.7         | 4.7       | 4.1     |
| 25.0       | 10.0    | 9.4     | 8.9   | 8.5         | 8.5       | 7.9     |
| 50.0       | 11.7    | 11.7    | 11.6  | 11.6        | 11.6      | 11.4    |
|            |         |         |       | North Po    | sition    |         |
| Depth (cm) |         |         |       | <u>T (</u>  | <u>c)</u> |         |
| 1.6        | 7.4     | 6.9     | 6.7   | 6.4         | 6.4       | 6.0     |
| 3.1        | 8.2     | 7.7     | 7.5   | 7.2         | 7.2       | 6.8     |
| 6.2        | 8.8     | 8.4     | 8.2   | 8.0         | 7.9       | 7.6     |
| 12.5       | 10.0    | 9.9     | 9.4   | 9.2         | 9.2       | 8.8     |
| 25.0       | 11.6    | 11.4    | 10.7  | 10.6        | 10.6      | 10.4    |
| 50.0       | m       | m       | m     | m           | m         | m       |
| •          |         |         | Ave   | erage Value | for Layer |         |
|            |         |         |       | <u>T (</u>  | <u>c)</u> |         |
| 0-5 cm     | 5.8     | 5.0     | 4.8   | 4.5         | 4.5       | 3.9     |

TABLE 3 (Continued)

| Run No.    |      |      |         | 2E          | 8           | 4A 8     | 4B      |
|------------|------|------|---------|-------------|-------------|----------|---------|
| Date       |      |      | 11-2-62 |             | 11-6-62     |          | 11-6-62 |
| Time (EST) | 0635 | 0745 | 0917    | 1033        | 1243        | 1403     | 1514    |
|            |      |      |         | Sou         | th Position | <u>n</u> |         |
| Depth (cm) |      |      |         |             | T (C)       |          |         |
| 1.6        | m    | 3.0  | 8.0     | 13.1        | 8.6         | 5.1      | 3.7     |
| 3.1        | 0.7  | 2.5  | 8.3     | 12.4        | 9.1         | 5.5      | 4.2     |
| 6.2        | 2.0  | 2.6  | 7.2     | 10.2        | 8.7         | 6.4      | 5.4     |
| 12.5       | 3.9  | 3.9  | 6.3     | 8.2         | 7.5         | 7.0      | 6.3     |
| 25.0       | 7.6  | 7.3  | 7.3     | 7.7         | 7.0         | 7.5      | 7.5     |
| 50.0       | 11.3 | 11.3 | 11.2    | 11.0        | 9.5         | 9.5      | 9.5     |
|            |      |      |         | Nor         | th Position | n        |         |
| Donth (cm) |      |      |         | <u>.102</u> |             | <b>:</b> |         |
| Depth (cm) |      |      |         |             | T (C)       |          |         |
| 1.6        | 5.6  | 5.8  | 6.8     | 7.9         | 7.0         | 6.2      | 5.8     |
| 3.1        | 6.5  | 6.5  | 7.6     | 8.8         | 7.7         | 7.1      | 6.8     |
| 6.2        | 7.3  | 7.2  | 7.3     | 7.7         | 6.8         | 6.8      | 6.7     |
| 12.5       | 8.6  | 8.5  | 8.4     | 8.5         | 7.3         | 7.5      | 7.5     |
| 25.0       | 10.2 | 10.1 | 9.9     | 9.8         | 8.4         | 8.4      | 8.5     |
| 50.0       | m    | m    | m       | m           | m           | m        | m       |
|            |      |      |         | Average     | Value for   | Layer    |         |
|            |      |      |         |             | T (C)       |          |         |
| 0-5 cm     | 3.4  | 4.0  | 6.3     | 8.3         | 7.5         | 6.2      | 5.9     |

TABLE 3 (Continued)

| Run No.     | 85A 851  | В 8.         | 5C       |
|-------------|----------|--------------|----------|
| Date        | 11-16-62 |              |          |
| Time (EST)  | 1241     | 1352         | 1505     |
|             |          | South Posi   | tion     |
| D +1- ()    | •        |              |          |
| Depth (cm)  |          | <u>T (C)</u> |          |
| 1.6         | 13.2     | 12.7         | 9.6      |
| 3.1         | 12.7     | 12.5         | 9.8      |
| 6.2         | 11.2     | 11.6         | 10.1     |
| 12.5        | 8.6      | 9.3          | 9.1      |
| 25.0        | 7.3      | 6.7          | 7.3      |
| 50.0        | 6.0      | 7.2          | 7.3      |
|             | 1        | North Posi   | tion     |
| Daniel (an) | •        |              |          |
| Depth (cm)  |          | <u>T (C)</u> |          |
| 1.6         | 6.6      | 7.0          | 6.7      |
| 3.1         | 6.9      | 7.2          | 6.9      |
| 6.2         | m        | 5.8          | 6.0      |
| 12.5        | 5.4      | 5.7          | 5.9      |
| 25.0        | 6.1      | 6.2          | 6.3      |
| 50.0        | m        | m            | m        |
|             | Averas   | ge Value fo  | or Laver |
|             |          | T (C)        |          |
| 0-5 cm      | 7.5      | 7.8          | 7.2      |
|             |          |              |          |

TABLE 4

ESTIMATES OF HEAT-BUDGET CONSTITUENTS AT THE EARTH-AIR INTERFACE\*

| Run No. | Date     | Time (EST) | R <sub>o</sub> | So    | Q <sub>o</sub>         | E <sub>0</sub> ** |
|---------|----------|------------|----------------|-------|------------------------|-------------------|
|         |          |            |                | (ca)  | l cm <sup>-2</sup> min | -1)               |
| 78A     | 10-25-62 | 0806-0850  | -0.33          | 0.05  | 0.07                   | 0.21(0.15)        |
| 79      | 10-29-62 | 1602-1718  | 0.15           | -0.06 | 0.02                   | -0.11             |
| 80A     | 11-1-62  | 2215-2315  | 0.15           | -0.04 | -0.01                  | -0.10             |
| 81A     | 11-1-62  | 2332-0046  | 0.15           | -0.04 | -0.01                  | -0.10             |
| 81B     | 11-2-62  | 0046-0202  | 0.15           | -0.02 | -0.01                  | -0.12             |
| 81C     | 11-2-62  | 0213-0318  | 0.16           | -0.02 | -0.02                  | -0.12             |
| 82A     | 11-2-62  | 0356-0511  | 0.15           | -0.03 | -0.01                  | -0.11             |
| 82C     | 11-2-62  | 0642-0743  | 0.03           | -0.03 | -0.01                  | 0.01              |
| 82D     | 11-2-62  | 0800-0915  | -0.21          | 0.09  | 0.04                   | 0.08(0.08)        |
| 82E     | 11-2-62  | 0916-1025  | -0.40          | 0.10  | 0.13                   | 0.17(0.15)        |
| 84A     | 11-6-62  | 1246-1401  | -0.06          | -0.03 | 0.02                   | 0.07              |
| 84B     | 11-6-62  | 1401-1513  | -0.02          | -0.02 | 0.02                   | 0.02              |
| 85A     | 11-16-62 | 1116-1231  | -0.44          | m     | 0.13                   | m                 |
| 85B     | 11-16-62 | 1254-1347  | -0.32          | 0.04  | 0.10                   | 0.18              |
| 85C     | 11-16-62 | 1358-1503  | -0.12          | 0     | 0                      | 0.12              |

<sup>\*</sup>The minus sign denotes a flux of energy toward the interface.

<sup>\*\*</sup>Values of E enclosed by parentheses were determined from refractive index measurements.

### SECTION II

## TURBULENCE STATISTICS

## A. EXPLANATION OF DATA-PRESENTATION FORMAT

Turbulence statistics are tabulated separately for each run and for each level at which data are available. Throughout the tabulation U, V, and W refer to the orthogonal components of the wind velocity and T refers to temperature. The quantity N is related to n, the refractive index of air, through the expression  $N = (n-1) \times 10^6$ . RHO(W) denotes the water vapor content of the air in g m<sup>-3</sup>. The letter E refers to the total kinetic energy defined by the expression  $E = 1/2(U^2 + V^2 + W^2)$ . Units of velocity are m sec<sup>-1</sup> and the unit of temperature is deg C. Covariances and cospectra are identified by the appropriate symbols of the two variables separated by a comma, except that the covariance between the vertical component of the wind velocity and the total kinetic energy is identified simply by WE. The data presentation fcllows a standard form which is explained below.

## 1. Identification of Experiment

The run number, measurement height, date, and the time duration of each experiment are listed at the top of the first page of each data set.

## 2. Gross Statistics

## a. Summary Information

Summary information is presented in three vertical columns. The first column gives the amount of cloud cover in tenths followed by the cloud type, the thermal stratification, and the air trajectory (land or water) during the experiment. The second vertical column lists the mean wind speed and the standard deviations of azimuth angle and elevation angle. The third column presents the mean azimuth wind direction and the solar and net radiation in Langleys min<sup>-1</sup>.

## b. Variances

Variances are presented for the three components of the wind velocity and for air temperature for all runs. Variances are also tabulated for refractive index (in N units) and water vapor for Runs 78A, 82D, and 82E. Identification of the variables for which the variances and other gross statistics have been calculated appears in the column at the left. Variances identified by E are one-half the sum of the variances of the three velocity components.

The variances for U, V, W, T, N, and RHO(W) are identified with the four data sets indicated by the column headings below the summary information. These are:

- . With No Running Mean refers to the complete data set.
- With 301 Point Running Mean data have been differenced with respect to a 301-point running mean.
- With 6i Point Running Mean data have been differenced with respect to a 61-point running mean.
- . 301 Pt Run Mean 10 Pt Block Avg the 301-point running mean data set described above has been reduced by 10-point sequential block averaging.

The variance for E is tabulated for the first three of these data sets only.

## c. Gustiness Ratios

The gustiness ratios for the three orthogonal components of the wind velocity are defined as  $\sigma_{\overline{U}}/\overline{U}$ ,  $\sigma_{\overline{V}}/\overline{U}$ ,  $\sigma_{\overline{V}}/\overline{U}$  where  $\sigma$  is the standard deviation of the distribution and  $\overline{U}^{u}$  is the mean wind speed. Gustiness ratios are presented for each of the four data sets described above.

## d. Covariances

The covariances U,V; U,W; U,T; V,W; V,T and W,T are presented for all runs for each of the four data sets. Covariances for U,N; U,RHO(W); V,N; V,RHO(W); W,N; W,RHO(W); T,N; T,RHO(W); N,RHO(W) are also tabulated for Runs 78A, 82D, and 82E for the four data sets. The covariance WE is presented for the first three data sets only.

## e. Normalized Covariances

The normalized covariances were calculated by dividing the covariances of the paired variates by the product of the standard deviations of the two variates.

## 3. Spectral and Cospectral Estimates

Spectral and cospectral calculations were carried out using the last two data sets described in Section 2b above for variables U, V, W, and T. Calculations for Runs 78A, 82D, and 82E also included N and RHO(W). For all runs except 78A, 82D, and 82E the results are presented in the following order:

## a. 61 Point Running Mean, No Block Averaging

Normalized cospectrum covariance Normalized quadrature covariance Normalized autocovariance Cospectrum Quadrature spectrum Power spectrum

## b. 301 Point Running Mean, 10 Point Block Average

Normalized cospectrum covariance Cospectrum Normalized quadrature covariance Quadrature spectrum Normalized autocovariance Power spectrum

The order of presentation for Runs 78A, 82D, and 82E has been altered slightly to include the refractive index and water vapor data. Estimates can be identified by page and column headings.

## c. Coherence

Estimates of the coherence between levels are presented for each of the three wind velocity components, for temperature, and also, in the case of Runs 78A, 82D, and 82E, for N and RHO(W). These estimates include quadrature and are presented for both the 61 Point Running Mean, No Block Averaging and the 301 Point Running Mean, 10 Point Block Average data sets. Tabulation of the coherence estimates follows the power spectrum estimates for the second level.

Cospectrum covariance, quadrature covariance, and autocovariance are tabulated against lag number M. Cospectrum covariance and quadrature covariance estimates have been normalized by dividing by the product of the standard deviations of the two variables; autocovariance estimates have been normalized by dividing by the variance of the data set. Normalization tractors head each column.

Cospectrum, quadrature spectrum, power spectrum, and coherence estimates are tabulated against K number. Tabulated values are to be multiplied by the power of 10 indicated in the column heading. Estimates have been combined within various frequency bands as indicated by K numbers at the left. Table 5 presents the relationship between these K numbers and the central frequencies of the individual bands.

TABLE 5

ADJUSTED FREQUENCY BANDS FOR SPECTRAL AND COSPECTRAL ESTIMATES

|     | 60-LAG AN                                  | 60-LAG ANALYSIS |  |  |  |  |
|-----|--|-----------------|--|--|--|--|
| K   | f <sub>k</sub> (cycles sec <sup>-1</sup> ) | K               | $f_k$ (cycles sec <sup>-1</sup> )          |  |  |  |
| 1   | 0.0069                                     | 9-11            | 0.0694                                     |  |  |  |
| 2   | 0.0139                                     | 12-15           | 0.0937                                     |  |  |  |
| 3   | 0.0208                                     | 16-20           | 0.1250                                     |  |  |  |
| 4   | 0.0278                                     | 21-27           | 0.1667                                     |  |  |  |
| 5   | 0.0347                                     | 28-36           | 0.2222                                     |  |  |  |
| 6   | 0.0417                                     | 37-47           | 0.2917                                     |  |  |  |
| 7-8 | 0.0521                                     | 48-60           | 0.3750                                     |  |  |  |
|     | 30-LAG AN                                  | MALYSIS         |  |  |  |  |
| K   | f <sub>k</sub> (cycles sec <sup>-1</sup> ) | К               | f <sub>k</sub> (cycles sec <sup>-1</sup> ) |  |  |  |
| 1   | 0.0014                                     | 7               | 0.0097                                     |  |  |  |
| 2   | 0.0028                                     | 8 •             | 0.0111                                     |  |  |  |
| 3   | 0.0042                                     | 9-11            | 0.0139                                     |  |  |  |
| 4   | 0.0056                                     | 12-14           | 0.0181                                     |  |  |  |
| 5   | 0.0069                                     | 15-21           | 0.0250                                     |  |  |  |
| 6   | 0.0083                                     | 22-30           | 0.0361                                     |  |  |  |

## B. PRESENTATION OF STATISTICS

The remainder of this volume contains the tabulation of the turbulence statistics for Runs 78A through 85C.

### RUN NG. 78A 18M 10-25-42 0806-0850 EST

## GROSS STATISTICS

| 4 CI CS<br>Unstable<br>Land | WIND SP<br>SIGNA A<br>SIGNA E | 13.6 DEG                       | WIND DIRE<br>SOLAR RAD<br>NET RADIA |                                       |
|-----------------------------|-------------------------------|--------------------------------|-------------------------------------|---------------------------------------|
|                             |                               |                                |                                     |                                       |
|                             | WITH NO<br>RUNNING MEAN       | WITH 301 POINT<br>RUNNING MEAN | WITH 61 POINT<br>RUNNING MEAN       | 301 PF XXM MEAN<br>10 PT BLOCK AVE    |
| VARIANCES                   |                               |                                |                                     |                                       |
| U                           | 0.58416E 00                   | 0.39688E-00                    | 0.23584E-00                         | 0.287708-00                           |
| Ÿ                           | 0.70734E 00                   | 0.45332E-00                    | 0.22167E-00                         | 0.342428-00                           |
| W<br>T                      | 0.23392E-00<br>0.17432E-00    | 0.20469E-00<br>0.36694E-01     | 0-17982E-00<br>0-16512E-01          | 0.12503E-00<br>0.28717E-01            |
| Ň                           | 0.27625E 01                   | 0.584215 00                    | 0.30741E-00                         | 0.440708-00                           |
| RHO(W)                      | 0.56579E-01                   | 0.20873E-01                    | 0.10943E-01                         | 0.157258-01                           |
| E                           | 0.76282E 00                   | 0.52777E 00                    | 0.31868E-00                         |                                       |
| GUSTINESS RATIO             | )S                            |                                |                                     |                                       |
| U                           | 0.22219                       | 0.18314                        | 0.14117                             | 0.19595                               |
| ٧                           | 0.24452                       | 0.19572                        | 0.13687                             | 0.17011                               |
| u                           | 0.14060                       | 0.13152                        | 0.12327                             | 0.10279                               |
| COVARIANCES                 |                               |                                |                                     |                                       |
| U, V                        | -0.57420E-01                  | -0.35076E-01                   | -0.71852E-02                        | -0.33457B-01                          |
| U.H                         | -0.86615E-01                  | -0.41812E-01                   | -0.14596E-01                        | -0.405918-01                          |
| U.T                         | -0.35738E-01                  | -0.58361E-01                   | -0.18980E-01                        | -0.47974E-01                          |
| V,W<br>V,T                  | -0.19415E-01<br>0.89611E-02   | -0.22299E-01<br>-0.86231E-02   | -0.48174E-02<br>0.62663E-02         | -0.236888-01<br>-0.11013E-01          |
| W,T                         | 0.39920E-01                   | 0.24254E-01                    | 0.17122E-01                         | 0.191678-01                           |
| U,N                         | -0.56924E 00                  | -0.12381E-00                   | -0.17841E-01                        | -0.106455-00                          |
| U,RHO(W)                    | -0.98331E-01                  | -0.30464E-01                   | -0.62797E-02                        | -0.25798E-01                          |
| V,N<br>V,RHO(W)             | -0.70376E-01<br>-0.97064E-02  | -0.49220E-01<br>-0.94780E-02   | 0.63725E-02<br>0.21828E-02          | -0.51385 <b>5</b> -01<br>-0.10283E-01 |
| W,N                         | 0.21676E-00                   | 0.15178E-00                    | 0.10274E-00                         | 0.115188-00                           |
| W.RHO(W)                    | 0.422485-01                   | 0.28905E-01                    | 0.19691E-01                         | 0.220648-01                           |
| T.N                         | -0.32796f-00                  | 0.76477E-01                    | 0.41007E-01                         | 0.567458-01                           |
| T,RHO(W)<br>N,RHO(W)        | -0.21491E-01<br>0.38683E-00   | 0.18957E-01<br>0.10811E-00     | 0.95968E-02<br>0.57039E-01          | 0.14339E-61<br>0.81379E-81            |
| WE                          | 0.10390E-01                   | -0.90234E-04                   | 0.41947E-02                         | 000231178-02                          |
|                             |                               |                                |                                     |                                       |
| NORMALIZED COV              |                               |                                |                                     |                                       |
| U, V                        | -0.08931                      | -0.08270                       | -0.03143                            | -0.10658                              |
| U,W                         | -0.23431                      | -0.14670                       | -0.07088                            | -0.21399                              |
| U, T                        | -0.11199                      | -0.4836T                       | -0.30415                            | -0.52717                              |
| V•W<br>V•T                  | -0.04772<br>0.02552           | -0.07320<br>-0.06686           | -0.02413<br>0.10358                 | -0.11545<br>-0.11094                  |
| W.T                         | 0.19769                       | 0.27986                        | 0.31422                             | 0.31907                               |
| U.N                         | -0.44810                      | -0.25712                       | -0.06626                            | -0.29888                              |
| U.RHO(W)                    | -0.53155                      | -0.33470                       | -0.12361                            | -0.38349                              |
| V,N<br>V,RHO(W)             | -0.05034<br>-0.04768          | -0.09564<br>-0.09744           | 0.02441<br>0.04432                  | -0.13227<br>-0.14013                  |
| V, KHUL N                   | 0.26965                       | 0.43892                        | 0.43697                             | 0.49063                               |
| W,RHO(W)                    | 0.36091                       | 0.44221                        | 0.44391                             | 0.49764                               |
| T,N                         | -0.47260                      | 0.52234                        | 0.57558                             | 0.50304                               |
| T,RHO(W)                    | -0.21267                      | 0.68497                        | 0.71395                             | 0.67408                               |
| N,RHO(W)                    | 0.96161                       | 0.97903                        | 0.98345                             | 0.97746                               |

RUN NO. 78A 16M 10-25-62 0806-0850 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

|          |                        | ON CONNENTS                             | 6                  |                          |                      |                    |
|----------|------------------------|---|--------------------|--------------------------|----------------------|--------------------|
| H        | U,V                    | U, W                                    | U.T                | V,W                      | V. T                 | W. T               |
|          | 0.22869<br>10E 00      | 0.20594<br>10E 00                       | 0.62400<br>10E-01  | 0.19970                  | 0.60509              | 0.54490            |
| •        |                        |   | 105-01             | 10E 00                   | 10E-01               | 10E-01             |
| 0        | 031384                 |   | 304041             | 023912                   | -103180              | -314128            |
| 1 2      | 028415                 |   | 275838             | 019174                   | .095739              | . 292532           |
| 3        | 021449                 |   | 226415             | 012056                   | .087078              | . 249334           |
| 4        | 022027<br>031283       |   | 174729             | 005044                   | .080334              | -205962            |
|          |                        | ******                                  | 136457             | .004210                  | .081710              | .160317            |
| 5<br>6   | 043108                 |   | 109430             | .016796                  | .077658              | 120171             |
| 7        | 052796                 | 041776                                  | 089322             | . 029235                 | .068967              | -139161<br>-100091 |
| 8        | 060622                 | 026610                                  | 072919             | .042196                  | .060901              | .073597            |
| 9        | ~• 060669<br>~• 055531 | 007614                                  | 054894             | .043838                  | - 048438             | .045395            |
| •        | 055551                 | .010762                                 | 030754             | -038068                  | .029472              | . 028659           |
| 10       | 047640                 | -024441                                 | 007446             | .027853                  | 010000               |                    |
| 11       | 041784                 | .027841                                 | .003305            | .015646                  | -010992              | 001315             |
| 12       | 034329                 | .033229                                 | .004401            | . 000676                 | 003271<br>012322     | 031229             |
| 13<br>14 | 027179                 | •042922                                 | .005489            | 016412                   | 024335               | 062717<br>082474   |
|          | 027607                 | - 045225                                | .003808            | 031114                   | 031178               | 086732             |
| 15       | 029565                 | .043714                                 | -000701            |                          |                      |                    |
| 16       | 029297                 | -036184                                 | .000395            | 039703                   | 036167               | 090242             |
| 17       | 024462                 | - 028204                                | •001096            | 040870                   | 038306               | 098036             |
| 18       | 020946                 | -024267                                 | .004727            | 035317<br>026333         | 041037               | 102257             |
| 19       | 021995                 | .028252                                 | .010354            | 013640                   | -•046823<br>-•049892 | 112308             |
| 20       | 023652                 |   |                    |                          | *******              | 122154             |
| 21       | 023632                 | • 032635                                | .018122            | 004168                   | 047707               | 134205             |
| 22       | 013571                 | -024118                                 | -025019            | -006138                  | 045464               | 138896             |
| 23       | 008523                 | .007416                                 | -025942            | <ul><li>020678</li></ul> | 044802               | 130420             |
| 24       | 001382                 | 009498<br>018052                        | -025215            | -028460                  | 047536               | 114202             |
|          |                        | *************************************** | .025865            | -029874                  | 052836               | 098154             |
| 25<br>26 | .006659                | 019692                                  | .031798            | .028867                  | 058097               | 083137             |
| 27       | •012630<br>•018258     | 024953                                  | -041984            | . 028462                 | 066126               | 070846             |
| 28       | • 025492               | 029512                                  | .060435            | - 027009                 | 073316               | 063744             |
| 29       | .032925                | 034733                                  | .083729            | .023033                  | 076307               | 059260             |
|          | 1032723                | 035200                                  | -100969            | .009847                  | 078282               | 051028             |
| 30       | .031443                | 032799                                  | -110947            | 004917                   | - 040000             |                    |
| 31       | • 026696               | 028771                                  | -114353            | 018150                   | 069982               | 036418             |
| 32       | -029940                | 018883                                  | -108483            | 032132                   | 055730<br>039371     | 023831             |
| 33<br>34 | -041783                | 015113                                  | -099871            | 042113                   | 029755               | 013647             |
| 34       | • 051052               | 014539                                  | .097839            | 044653                   | 018134               | 003963<br>.000764  |
| 35       | • 061029               | 011305                                  | -100406            | - 027005                 |                      |                    |
| 36       | -066849                | 005456                                  | .098075            | 037085<br>025360         | 006508               | .001041            |
| 37       | • 069512               | 001336                                  | .096236            | 015781                   | • 004125             | 000792             |
| 38       | -072391                | .008975                                 | .094101            | 009188                   | •010039<br>•019025   | -006406            |
| 39       | • 076885               | • 019574                                | .090968            | 002064                   | •029380              | .017063            |
| 40       | .083868                | 020000                                  |                    |                          | 1027500              | •023200            |
| 41       | .093908                | .030239                                 | .085915            | • 000625                 | .038197              | .027560            |
| 42       | . 095429               | .038505<br>.042599                      | .085364            | 004385                   | .036968              | .033590            |
| 43       | .095840                | •045300                                 | -087887            | 015733                   | .033916              | .047212            |
| 44       | .093965                | -044021                                 | .088066<br>.082805 | 028266                   | .028095              | .063857            |
| 4.5      | 233                    |   | 1002003            | 039060                   | .015288              | •074727            |
| 45<br>46 | -087697                | -048775                                 | .0/5794            | 046877                   | .004595              | 070000             |
| 47       | .074964                | •057532                                 | .066691            | 048218                   | 000748               | -073709            |
| 48       | • 058975<br>• 044446   | .063959                                 | .059550            | 045920                   | 001397               | .057507<br>.043242 |
| 49       | .027263                | • 066203                                | .044981            | 034814                   | .006310              | .036973            |
|          | .02.203                | .067371                                 | •026093            | 022414                   | .020800              | .031792            |
| 50       | .014262                | -063106                                 | -003846            | 013564                   | 037                  |                    |
| 51       | • 005968               | .056172                                 | 010229             | 003101                   | .037585              | .025764            |
| 52<br>53 | 003589                 | .049973                                 | 015935             | •002195                  | .047213<br>.048349   | .015673            |
| 53<br>54 | 020223                 | -045427                                 | 021510             | .005806                  | .047384              | -010024            |
| 74       | 029791                 | .036436                                 | 029869             | .019700                  | .042916              | •007431<br>•002943 |
| 55       | 037262                 | -028385                                 | 031874             | 0034.00                  | 100                  |                    |
| 56       | 039780                 | .019338                                 | 032343             | •027481<br>•030732       | .038711              | 005010             |
| 57       | 037819                 | .007926                                 | 029440             | .030853                  | .034835              | 015631             |
| 58       | 038973                 | 002104                                  | 031713             | .032187                  | .031849              | 024716             |
| 59       | 041023                 | 009912                                  | 035365             | .032222                  | .029487<br>.026167   | 029753             |
| 60       | 050820                 | - 012022                                |                    |                          | 2050101              | 030726             |
|          | 030820                 | 013833                                  | 038422             | .031706                  | -018744              | 037996             |
|          |                        |   | • -                |                          |                      |                    |

RUN NO. 78A 16M 10-25-62 0806-0850 EST 61 POINT RUNNING HEAN, NO BLOCK AVERAGING

| M  | U.N     | U,RHO(W) | V.N     | V,RHO(W) | W.N     | W, RHO(W)             | T.N     | T, FHO(W) | N,RHO(W) |
|----|---------|----------|---------|----------|---------|-----------------------|---------|-----------|----------|
|    | 0.26930 | 0.50807  | 0.26114 | 0.49267  | 0.23516 | 0.44366               | 0.71256 | 0.13443   | 0.58017  |
|    | 10E 00  | 108-01   | 10E 00  | 10E-01   | 10E 00  | 10E-01                | 10E-01  | 10E-01    | 10E-01   |
| 0  |         | 123844   |         |          | .436957 | . 443922              | .575593 | .713998   | .983392  |
| 1  |         | 111882   | -031274 |          |         |                       | .496710 |           | .843330  |
| 2  |         | 089857   |         |          |         | . 332598              | .384942 | .486880   | .661810  |
| 3  |         | 061467   |         |          |         | - 270564              | .290249 | . 364692  | .512119  |
| 4  | 011481  | 039924   | .047294 | .058779  | .213199 | . 219758              | -209969 | .267910   | .382111  |
| 5  | 004197  | 027595   | .038664 | .050439  | .176693 | .182109               | -146010 | .189972   | -276696  |
| 6  | .002055 | 017802   | .026923 | .038423  | .139779 | . 143566              | .090305 | -121642   | .185805  |
| 7  |         | 010848   | .021427 | .031791  | .103850 | · 1050 <del>9</del> 0 | -041188 | .061286   | .110463  |
| 8  |         | 000126   |         | .021148  | .065138 | .065844               | .002614 | .013205   | .047935  |
| 9  | .023496 | .013280  | 003934  | .003008  | .030807 | -030961               | 026546  | 024864    | 001940   |
| 10 | .028458 | .022486  | 019409  | 014429   | 001980  | 001810                | 048327  | 054782    | 043075   |
| 11 | .022063 | -019195  | 026832  | 024022   | 041012  | 041958                | 069635  | 082023    | 088295   |
| 12 | .018689 | .016680  | 028373  | 027392   | 079977  | 082337                | 090297  | 104774    | 137439   |
| 13 | .018749 |          |         |          |         | 114063                |         |           |          |
| 14 | .016601 | .014972  | 036891  | 038798   | 128519  | 129046                | 116690  | 134083    | 210867   |
| 15 | .009329 | .008116  | 034898  | 037980   | 139073  | 138813                | 119569  | 135174    | 228596   |
| 16 | 000086  |          |         |          |         | 151989                |         |           |          |
| 17 | 009389  | 007847   | 020705  | 026744   | 159955  | 159546                | 114153  | 124143    | 256191   |
| 18 | 016675  | 013511   | 023147  | 030171   | 165514  | 166604                | 111814  | 121033    | 262374   |
| 19 | 020918  | 015923   | 027839  | 034974   | 168527  | 171418                | 120098  | 131033    | 269293   |
| 20 | 021123  | 014347   | 026262  | 033192   | 174315  | 179014                | 136307  | 14991B    | 283026   |
| 21 |         |          |         |          |         | 188336                |         |           |          |
| 22 |         |          |         |          |         | 187512                |         |           |          |
| 23 | 045453  | 033570   | 019350  | 027027   | 172993  | 173314                | 123111  | 144446    | 261520   |
| 24 | 055765  | 042035   | 024781  | 032901   | 150579  | 150544                | 101674  | 124590    | 221502   |
| 25 | 057430  | 042171   | 031807  | 040055   | 127901  | 127810                | 085206  | 108552    | 187006   |
| 26 |         |          |         |          |         | 113058                |         |           |          |
| 27 |         |          |         |          |         | 103036                |         |           |          |
| 28 | 028369  | 005186   | 019441  | 033817   | 094464  | 094022                | 071517  | 095794    | 132445   |
| 29 | 018118  | .007312  | 018740  | 033686   | 079596  | 079412                | 066260  | 089629    | 104936   |
| 30 | 009866  | -016482  | 017282  | 030634   | 062102  | 061010                | 060181  | 081877    | 076051   |
| 31 | 004856  |          |         |          |         | 042295                |         |           |          |
| 32 | 003471  | .021145  |         |          |         | 022583                |         |           |          |
| 33 | .001262 | .023388  | .013260 | .004720  | 005187  | 005379                | 016775  | 031039    | .021237  |
| 34 | .011602 | .031505  | .021953 | -014707  | .006025 | .005373               | 012849  | 026240    | .039318  |
| 35 | .020100 | .039510  | .026220 | .020988  | .014147 | -012480               | 014776  | 027486    | .042590  |
| 36 | .022003 | .040763  | .029819 | .026321  | .021876 | .018617               | 018741  | 031043    | .039627  |
| 37 | .024403 | .042404  | .034325 | .031541  | .034878 | .031342               | 017014  | 029699    | .047110  |
| 38 | .027093 | .044202  | .039837 | .038418  | .050747 | .046971               | 010059  | 024444    | .056040  |
| 39 | .031704 | .047354  | .045721 | .045781  | .060387 | . 056740              | 000760  | 016585    | .065562  |
| 40 | .034146 | .048430  | .046659 | .048564  | .068801 | .064977               | .005487 | 010555    | .072732  |
| 41 | .038267 | .051945  | .040354 | .042947  | .075057 | .071632               |         | 000043    | .080781  |
| 42 | .041990 | .055734  | .029308 | .032837  | .077793 | .076838               | .028914 | .014021   | .088069  |
| 43 | -042627 | .056331  | .017769 | .021668  | .080945 | .083208               | .044503 | .028396   | .095634  |
| 44 | .037690 | .050862  | .003197 | .006223  | .092623 | .095673               | .057585 | .040033   | .107415  |
| 45 | .034707 | .046636  | 009833  | 007288   | .099682 | . 101643              | .061476 | .043524   | -104182  |
| 46 | .034643 |          | 019396  |          | .091786 | .091478               | .053311 | .034500   | .084943  |
| 47 | .037536 |          | 024423  |          | .085698 | .083158               | .040278 | .021533   | .055422  |
| 48 | .034925 | .040059  | 021949  | 017454   | .084011 | .080163               | .027749 | .011213   | .023780  |
| 49 | .031766 | .033247  | 015319  | 008510   | .085393 | .080324               | .015910 | .001994   | 003264   |
| 50 | .027528 | .024402  | 011059  | 001092   | .085537 | .079061               | -008085 | 003226    | 021046   |
| 51 | .023999 |          | 008840  | .002987  |         |                       |         | 003384    |          |
| 52 | .022025 |          | 006678  |          |         |                       |         | .001706   |          |
| 53 | .019496 |          | 004281  |          |         |                       | .013938 |           | 034382   |
| 54 | .018856 |          | 007351  |          |         | .017406               |         | .006868   |          |
| 55 | .023273 | .012593  | 006159  | .003371  | 00005#  | 001622                | .012465 | .006731   | 034355   |
| 56 | .027351 |          | 007550  |          |         |                       | .011138 |           | 029600   |
| 57 | .032684 |          | 011811  |          |         |                       | .014566 |           | 017658   |
| 58 | .032816 |          | 014179  |          |         |                       | .020803 |           | 006968   |
| 59 | .028000 |          | 016447  |          |         |                       | .024555 | .030090   | .001919  |
| 60 | .024025 | .011944  | 019802  | 013110   | 056981  | 056971                | .014638 | .022567   | 004735   |
|    | -       |          |         |          |         |                       |         |           |          |

RUN NO. 78A 16M 10-25-62 0806-0850 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

## NORMALIZED QUADRATURE COVARIANCE

|     |   |          | _                 |   |                    |                    |
|-----|---|----------|-------------------|---|--------------------|--------------------|
| M   | U.V                                     | U,W      | U.T               | V.W                                     | V,T                | W, T               |
|     | 0.22869                                 | 0.20594  | 0 (0(00           |   |                    |                    |
|     | 10E 00                                  | 10E 00   | 0.62400<br>10E-01 | 0.19970<br>10E 00                       | 0.60509<br>10E-01  | 0.54490<br>10E-01  |
| 1   | •005797                                 | 057973   | - 020705          | 000044                                  |                    |                    |
| 2   | .014929                                 | 107404   | 030705<br>053724  | 005064                                  | .001527            | 029598             |
| 3   | - 024605                                | 141558   |                   | 002752                                  | • 000999           | 044441             |
| 4   | .028376                                 | 171516   | 069248            | .002976                                 | 000265             | 053246             |
| 5   | .031037                                 | 187823   | 081000<br>090529  | • 003211                                | 004244             | 059444             |
|     | *************************************** |          | 090529            | 002280                                  | 008454             | 062416             |
| 6   | .041576                                 | -195160  | 099025            | 003797                                  | 603604             |                    |
| 7   | . 056779                                | 197935   | 101159            |   | 007506             | 063254             |
| 8   | .066957                                 | 198420   | 095951            | 005962<br>005414                        | 000750             | 062293             |
| 9   | .072138                                 | 190434   | 085905            | 001207                                  | .009833            | 061855             |
| 10  | -071808                                 | 177373   | 074582            | .007556                                 | .014930            | 063568             |
|     |   |          |                   | •001338                                 | -014591            | 063997             |
| 11  | .070068                                 | 164357   | 062395            | .011981                                 | .012097            | 041040             |
| 12  | .072796                                 | 152214   | 046148            | .014923                                 |                    | 061269             |
| 13  | .070038                                 | 136715   | 029964            | -018668                                 | •009457            | 058613             |
| 14  | .065423                                 | 120140   | 016887            | -022061                                 | •010409            | 056812             |
| 15  | .058084                                 | 104931   | 009120            | .023213                                 | .017451            | 057280             |
| 2.5 |   |          |                   | *******                                 | .020738            | 057217             |
| 16  | .051989                                 | 092545   | 001327            | .027491                                 | .021405            | 010100             |
| 17  | .057395                                 | 085812   | .011103           | .033474                                 |                    | 063650             |
| 18  | .063451                                 | 080775   | .027325           | .041009                                 | .030031<br>.035539 | 071881             |
| 19  | .063488                                 | 071597   | -035408           | .046607                                 |                    | 075536             |
| 20  | .059548                                 | 060382   | .037874           | .044975                                 | -036351            | 072013             |
|     |   |          |                   | ******                                  | .039720            | 064133             |
| 21  | .053362                                 | 044961   | .045102           | .042482                                 | .040067            |                    |
| 22  | • 050254                                | 030091   | .057687           | .038038                                 |                    | 050623             |
| 23  | • 046065                                | 014093   | -064625           | •033920                                 | -044331            | 037577             |
| 24  | .041802                                 | 001291   | .067569           | .029478                                 | .046084            | 029130             |
| 25  | .036064                                 | .005475  | .068216           | .021793                                 | 1044899            | 024361             |
|     |   |          |                   | 4021173                                 | .041237            | 022932             |
| 26  | • 024769                                | .011265  | .065009           | .015294                                 | .036416            | 005450             |
| 27  | .011825                                 | .023060  | .055301           | .005440                                 | .030214            | 025470             |
| 28  | 006900                                  | .029677  | .045355           | 007447                                  | -019672            | 020067             |
| 29  | 020409                                  | -038465  | .038017           | 015339                                  | -010994            | 009159             |
| 30  | -• 026085                               | . 049653 | .024459           | 013530                                  |                    | •004579            |
|     |   |          |                   | *************************************** | • 003429           | .016698            |
| 31  | 032729                                  | -064100  | .011590           | 009696                                  | 002499             |                    |
| 32  | 040583                                  | -078965  | .003396           | 007900                                  | 004982             | -025684            |
| 33  | 038709                                  | .099718  | -001598           | 003527                                  | 003733             | .031482            |
| 34  | 033593                                  | .116775  | 000021            | .000168                                 | .002694            | -040195            |
| 35  | 036099                                  | .126573  | 004786            | .000371                                 | .002694            | .052537            |
| • • |   |          |                   |   | ******             | -065498            |
| 36  | 043330                                  | -126067  | 013292            | .003310                                 | -010779            | 0005/0             |
| 37  | 047475                                  | ·115811  | 026736            | .008921                                 | .010054            | -080560            |
| 38  | 044669                                  | -100935  | 038226            | .005048                                 | .014262            | .092058<br>.093726 |
| 39  | 037811                                  | -083042  | 044950            | 002070                                  | .013729            | .085838            |
| 40  | 033248                                  | .061255  | 051262            | 003928                                  | .007815            | .077777            |
| 41  | - 033050                                | 2022000  |                   |   |                    | •011111            |
| 42  | 033850                                  | .045484  | 058014            | 001230                                  | 003311             | .074989            |
| 43  | 034866                                  | -030490  | 064911            | .001314                                 | 014869             | A72071             |
| 44  | 037281                                  | .017213  | 069717            | 001984                                  | 025341             | .063606            |
| 45  | 040482                                  | -006586  | 063072            | 012221                                  | 029894             | .052340            |
| 47  | ~.038459                                | -000874  | 051210            | 023546                                  | 026292             | .037576            |
| 46  | - 030433                                |          |                   |   |                    | 003,310            |
| 47  | 030422                                  | 005737   | 042011            | 030760                                  | 016081             | .020264            |
| 48  | 026459                                  | 010179   | 039278            | 034438                                  | 005481             | .009919            |
| 49  | 026377                                  | 015742   | 037022            | 034015                                  | .001240            | .002889            |
| 50  | 025736                                  | 016330   | 035280            | 030594                                  | .001575            | 000244             |
| 20  | 017436                                  | 014450   | 031826            | 028284                                  | 007627             | 006575             |
| 51  | 009383                                  | - 01055  |                   |   |                    |                    |
| 52  | 010682                                  | 018384   | 027040            | 026569                                  | 013484             | 012582             |
| 53  | 005721                                  | 016917   | 023966            | 020391                                  | 016279             | 011209             |
| 54  |   | 011857   | 027614            | 012600                                  | 013825             | .001033            |
| 55  | • 006305<br>• 019247                    | - 000935 | 025342            | 011249                                  | 008944             | -015571            |
|     | . 017641                                | -014580  | 011644            | 011830                                  | .001223            | .023874            |
| 56  | .020704                                 | 00000    |                   |   |                    |                    |
| 57  | -029796                                 | -028115  | 001202            | 011803                                  | .017344            | .025320            |
| 58  | -03640C                                 | .033630  | .003575           | 010476                                  | .031567            | .021901            |
| 59  | •041722<br>037305                       | - 032694 | .005697           | 008880                                  | .041017            | .016664            |
| 60  | •037385<br>•024447                      | -022083  | -009049           | 002462                                  | .046857            | .010411            |
|     | • 44441                                 | .009925  | .007339           | .003092                                 | .043035            | .006462            |
|     |   |          |                   |   |                    |                    |

RUN NO. 78A 16M 10-25-62 0806-0850 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

## NORMALIEED QUADRATURE COVARIANCE

| H        | U.N                | U.RHO(W)                   | V.N               | V,RHO(W)          | W, N               | W,RHO(W)          | T,N               | T,RHO(W)          | N,RHO(W)           |
|----------|--------------------|----------------------------|-------------------|-------------------|--------------------|-------------------|-------------------|-------------------|--------------------|
|          | 0.26930<br>10E 00  | 0.50807<br>10 <b>5</b> -01 | 0.26114<br>10E 00 | 0.49267<br>10E-01 | 0.23516<br>10E 00  | 0.44366<br>10E-01 | 0.71256<br>10E-01 | 0.13443<br>10E-01 | 0.58017<br>10E-01  |
| 1        | 008635             | 014199                     | .003348           | .003481           | 017317             | 021140            | 013948            | 011865            | .003208            |
| 2        | 025860             | 033965                     | .011051           | .010095           | 014471             | 021931            | 021759            | 018611            | -004820            |
| 3        | 040723             |                            | .019476           |                   | 010768             |                   |                   |                   | .006252            |
| 4        | 059625             |                            | .022802           |                   | 004450             |                   |                   |                   | .006258            |
| 5        | 080117             | 088552                     | .023219           | .018050           | .003997            | 010354            | 023926            | 020915            | .004910            |
| 6        | 098553             |                            | .026885           | .021230           |                    |                   |                   | 015302            | •003442            |
| 7        | 107058<br>109538   |                            | .026939           | .022797           | .019973            |                   | 013318            | 011701            | .002720<br>.001490 |
| 9        | 108391             |                            | .038299           | .036079           | .016726            |                   | 002618            |                   | .000410            |
| 10       | 103359             |                            | .042548           | .039661           |                    | 001197            |                   | .000945           |                    |
| 11       | 094373             | 094689                     | .042638           | .039385           | .014637            | 000832            | .001979           | .001336           | 000576             |
| 12       | 082747             | 081150                     | .045900           | .041676           | .013659            | 001127            | .005608           | .004365           | 001372             |
| 13       | 069111             |                            | .048970           | .044392           |                    | 002669            | .009872           |                   | 002236             |
| 14       | 051960             |                            | .052272           | .048699           |                    | 008184            | .011595           |                   | 002609             |
| 15       | 038752             | 035510                     | .047273           | .045136           | .003731            | 009400            | .010017           | .008470           | 002165             |
| 16       | 027031             |                            | .037950           | .037285           |                    | 011014            | .008339           |                   | 001696             |
| 17       | 010459             |                            | •035509           | _                 | 002762             |                   | .005915           |                   | 001148             |
| 18       | .007460            | .012145                    | .030843           |                   | 009543             |                   | .000572           | .000648           | .000154            |
| 19<br>20 | .022498<br>.035929 | .026878                    | .022403           |                   | 010462<br>008633   |                   |                   |                   | .002112<br>.003995 |
|          | .033727            | .037100                    |                   |                   |                    |                   |                   |                   |                    |
| 21       | .050317            | .053371                    | .007067           | -014988           |                    |                   |                   | 019299            | .004819            |
| 22<br>23 | .074074            | .076449                    | .006017           | .015120           |                    |                   | 026114            |                   | .005531            |
| 24       | .094654            | -104950                    | 002028            | .012325           | 000826             |                   | 027210            |                   | .005865<br>.007085 |
| 25       | .109690            |                            | 009308            |                   | 014569             |                   |                   |                   | .008039            |
|          |                    |                            |                   |                   |                    |                   |                   |                   |                    |
| 26<br>27 | .110560<br>.103549 |                            |                   |                   | 030168<br>043641   |                   |                   |                   | .008053<br>.008295 |
| 28       | .090301            |                            |                   |                   | 049548             |                   |                   |                   | .008752            |
| 29       | .082237            |                            |                   |                   | 052481             |                   |                   |                   | .009819            |
| 30       | .077255            | .071713                    | 024614            | 020189            | 054544             | 042942            | 039499            | 034083            | .008518            |
| 31       | .072342            | .064667                    | 032462            | 028118            | 053885             | 040325            | 041195            | 035341            | .008882            |
| 32       | .068365            | .059190                    | 039311            | 034475            | 048354             | 034324            | 040881            | 034944            | .008838            |
| 33       | .066309            |                            |                   |                   | 041557             |                   |                   |                   | .009089            |
| 34       | .069439            |                            |                   |                   | 035178             |                   |                   |                   | .010606            |
| 35       | .069223            |                            |                   |                   | 026437             |                   |                   |                   | .011478            |
| 36       | .063722            |                            |                   | 009453            |                    |                   | 051356            |                   | -011407            |
| 37<br>38 | .049221            |                            | 013405<br>012968  |                   | .000923<br>.004453 |                   | 051632<br>045061  |                   | .011567<br>.010250 |
| 39       |                    | 003784                     |                   |                   | .003765            |                   | 035020            |                   | .008064            |
| 40       |                    | 021798                     |                   |                   | .007486            |                   | 025284            |                   | .005827            |
| 41       | 031916             | 040550                     | 013655            | 012206            | .014200            | .028931           | 019540            | 016782            | .004482            |
| 42       | 051054             | 058306                     | 009888            | 011608            | .014639            |                   | 016828            |                   | .003872            |
| 43       |                    |                            | 007004            | 011495            | .013101            | .025553           | 013489            | 011516            | .003068            |
| 44       |                    | 087730                     |                   |                   | .005688            |                   |                   | 006518            |                    |
| 45       | 088722             | 087543                     | .011120           | .003782           | 005687             | .003514           | .000940           | .000900           | 000133             |
| 46       | 085805             |                            | .022870           |                   | 013121             |                   | .009376           |                   | 002073             |
| 47       | 083562             |                            | .037362           |                   | 013072             |                   | .018799           |                   | 004103             |
| 48<br>49 | 080125<br>076278   |                            | .050552           |                   | 011906<br>004986   |                   | .026022           |                   | 005619<br>006667   |
| 50       | 070085             |                            | .055342           |                   | 003604             |                   | .037837           |                   | 008412             |
|          |                    |                            |                   |                   |                    |                   |                   |                   |                    |
| 51       | 062064             |                            | .053114           | .042243           | 000851<br>.008167  | 003704            | .047024           |                   | 010350<br>011555   |
| 52<br>53 | 054132<br>055211   |                            | .040202           | .031070           | .024168            | .020704           | .055397           |                   | 011980             |
| 54       | 057731             |                            | .026166           | .020047           | .039200            | .036877           | .056704           |                   | 012252             |
| 55       | 050095             |                            | .016061           | .013582           | .049182            | .047152           | .059376           |                   | 012958             |
| 56       | 034092             | 029264                     | .014450           | .015692           | .053715            | .051153           | .061194           | .052310           | 013611             |
| 57       | 014076             | 010961                     | .012168           | .016857           | .054203            | .050848           | .060998           |                   | 013509             |
| 58       | .000932            | .002427                    | .013425           | .020082           | .050234            | .046378           | .058099           |                   | 012947             |
| 59       | .007113            | .008598                    | -018251           | .025637           | .040749            | .036855           | .052215           |                   | 011803             |
| 60       | .007522            | .008685                    | .021659           | .027694           | .033792            | .029850           | .045351           | .038267           | 010242             |

RUN NO. 78A 16M 10-25-62 0806-0850 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

## NORMALIZED AUTOCOVARIANCE

| M      | U                  | . v                | W                  | T                 | N                  | RHO(W)             |
|--------|--------------------|--------------------|--------------------|-------------------|--------------------|--------------------|
|        | 0.23583<br>10E 00  | 0.22175<br>10E 00  | 0.17983<br>10E 00  | 0.16511<br>10E-01 | 0.30752<br>10E 00  | 0.10946<br>10E-01  |
| 0      | 1.000000           | 1.000000           | 1.000000           | 1.000000          | 1.000000           | 1.000000           |
| i      | .859299            | -848153            | .842527            | .869663           | .856504            | .858873            |
| 2      | .678554            | .655822            | -642290            | .681969           | .673210            | .673336            |
| 3      | .529671            | . 506363           | .481019            | . 523332          | . 522834           | .519471            |
| 4      | .409420            | .388499            | .355396            | . 397346          | .391951            | .386543            |
| 5      | .305663            | .282391            | .260379            | .293199           | .285268            | .279082            |
| 6      | .220537            | .187722            | .179564            | . 200629          | .193380            | .186198            |
| 7      | .145230            | .108359            | .102693            | .118289           | .118153            | .108261            |
| 8<br>9 | .081469<br>.031875 | .041015<br>016222  | .031979<br>021689  | .050603<br>009262 | .055418<br>.004631 | .043839<br>007209  |
| 10     | .003167            | 054464             | 061970             | 060761            | 037913             | 048930             |
| 11     | 022669             | 073653             | 096851             | 101440            | 085232             | 093668             |
| 12     | -,051956           | 084303             | 124452             | 132388            | 136953             | 141514             |
| 13     | 086938             | 103303             | 151843             | 150936            | 180498             | 180205             |
| 14     | 118943             | 121491             | 177953             | 154569            | 216335             | 210061             |
| 15     | 142335             | 135719             | 201747             | 148177            | 235988             | 225718             |
| 16     | 158642             | 153642             | 227630             | 133310            | 255344             | 238975             |
| 17     | 170452             | 168708             | 243315             | 119706            | 269563             | 246920             |
| 18     | 183579             | 187007             | 253193             | 115149            | 277357             | 251529             |
| 19     | 191699             | 205538             | 257693             | 128480            | 283278             | 259666             |
| 20     | 199242             | 213429             | 258691             | 151388            | 295475             | 275355             |
| 21     | 200214             | 225381             | 266162             | 172726            | 305106             | 288167             |
| 22     | 197271             | 247514             | 278283             | 178286            | 296477             | 278793             |
| 23     | 201180             | 264959             | 285391             | 177006            | 273802             | 255717             |
| 24     | 207101             | 281776             | 286027             | 169961            | 232365             | 217253             |
| 25     | 208577             | 291569             | 277241             | 161486            | 196430             | 184080             |
| 26     | 205254             | 279783             | 264074             | 155826            | 170685             | 162271             |
| 27     | 207711             | 256497             | 240566             | 154618            | 153378             | 148571             |
| 28     | 208421             | 229430             | 213682             | 154785            | 135960             | 134845             |
| 29     | 201322             | 198068             | 187929             | 147670            | 105186             | 109917             |
| 30     | 189006             | 162843             | 157582             | 136148            | 073029             | 083470             |
| 31     | 172201             | 116487             | 114361             | 116101            | 039243             | 053490             |
| 32     | 144676             | 077024             | 080620             | 089755            | 002563             | 018188             |
| 33     | 115994             | 048017             | 054039             | 074020            | .029284            | .011145            |
| 34     | 090517             | 023269             | 025473             | 067516            | .049270            | .027771            |
| 35     | 071419             | .003923            | .005230            | 065654            | .053700            | .030211            |
| 36     | 048378             | .024921            | .032620            | 065684            | .051581            | .026968            |
| 37     | 030379             | .042658            | .054229            | 066377            | .059568            | .033559            |
| 38     | 022004             | .062957            | .086809            | 069326            | .068164            | .042380            |
| 39     | 013343             | .075647            | •110025            | 069443            | .076963            | .052195            |
| 40     | 010435             | .080076            | .121085            | 067304            | .083645            | .059775            |
| 41     | 001569             | .085677            | .125820            | 058561            | .090383            | .069115            |
| 42     | 002097             | -087474            | .127834            | 047721            | .095471            | .078404            |
| 43     | 008828<br>011289   | .091336<br>.089292 | •125072<br>•134691 | 043448<br>042456  | .100509<br>.110467 | .088255<br>.100929 |
|        |                    |                    |                    |                   |                    |                    |
| 45     | 012173<br>014069   | .081480<br>.076615 | .143600<br>.147364 | 042445            | .105533            | .099087<br>.080524 |
| 47     |                    |                    |                    | 051691            | .085291            |                    |
| 48     | 020028<br>026085   | .060953<br>.045629 | .155082<br>.157136 | 059559<br>056844  | .054229<br>.020599 | .052331<br>.022848 |
| 49     | 032384             | .032907            | .158829            | 052394            | 008015             | 002296             |
| 50     | 034303             | .017451            | .145717            | 045744            | 027960             | 019336             |
| 51     | 036007             | 003842             | .120143            | 040623            | 041139             | 029575             |
| 52     | ~.035621           | 018347             | .088418            | 035061            | 043723             | 029332             |
| 53     | 030285             | 023271             | .055041            | 028046            | 044007             | 027956             |
| 54     | 021935             | 026477             | .020161            | 023237            | 043854             | 027394             |
| 55     | 005962             | 024439             | 007495             | 018330            | 043724             | 027619             |
| 56     | .017108            | 025519             | 032947             | 011105            | 037816             | 023395             |
| 57     | .027961            | 027811             | 057909             | .001561           | 024714             | 011971             |
| 58     | .033946            | 032243             | 074236             | .023117           | 013895             | 000509             |
| 59     | .036538            | 047937             | 071687             | .039913           | 004231             | .008451            |
| 60     | .037573            | 064666             | 074440             | .044549           | 009324             | .000989            |

RUN NO. 78A 16M 10-25-62 0806-0850 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| ~  |    | - ^  | TR |   |
|----|----|------|----|---|
| LU | rt | : L. | TR | ш |

| COSPECTRUM    |                   |                    |                  |                    |                    |                    |
|---------------|-------------------|--------------------|------------------|--------------------|--------------------|--------------------|
| K             | U <b>, V</b>      | U, W               | U•T              | V.W                | V.T                | W, T               |
|               | 10E-02            | 10E-02             | 10E-02           | 10E-02             | 10E-02             | 10E-02             |
| 0             | 122983            | 048017             | 053179           | 005179             | .004137            | .019491            |
| i             | 879495            | 281600             | 463805           | .114148            | .123906            | .207274            |
| 2             | 419539            | 167471             | 376812           | .056897            | .203367            | .336499            |
| 3             | .127609           | 320660             | 196859           | 006059             | .192132            | .408663            |
| 4             | .092014           | 514002             | 140044           | .087250            | .067201            | .260902            |
| 5             | .032721           | 289293             | 171014           | .063808            | .023967            | .132290            |
| 6             | .096589           | 069249             | 147034           | 126328             | .039921            | .073442            |
| 7-8           | .080265           | 003788             | 073365           | 291619             | 012871             | .055547            |
| 9-11<br>12-15 | .048474<br>030139 | .030282<br>.008632 | 041978<br>031806 | 028861<br>.022123  | 005580<br>.002227  | .024471<br>.024864 |
| 16-20         | 024909            | 007348             | 020126           | .004905            | .004808            | .006180            |
| 21-27         | 009971            | 003022             | 004570           | 007381             | .002527            | .008614            |
| 28-36         | 004741            | .005168            | 003059           | 002219             | .002297            | .000303            |
| 37-47         | .002312           | .006872            | 001225           | 002632             | 000653             | .000994            |
| 48-60         | .000737           | 002144             | 001623           | .000017            | .001181            | .000229            |
| QUADRATURE    | SPECTRUM          |                    |                  |                    |                    |                    |
| K             | U.V               | U, W               | U, T             | V,W                | V, T               | W, T               |
|               | 0,1               | 01#                | 011              | ***                | •••                | -7.                |
|               | 10E-02            | 10E-01             | 10E-02           | 10E-02             | 10E-02             | 10E-02             |
| 1             | .610314           | 082941             | 009146           | .273744            | .115182            | 125453             |
| 2             | .756827           | 137208             | 044008           | .212694            | .065184            | 197003             |
| 3             | .512850           | 145430             | 194740           | .034656            | 004682             | 134989             |
| 4             | .053640           | 074422             | 224744           | 117584             | 039736             | 010194             |
| 5             | 021103            | 047077             | 112253           | 155361             | 025546             | 023978             |
| 6             | .056196           | 047255             | 051182           | 053096             | .000723            | 040795             |
| 7-8           | 000910            | 017968             | 029588           | -051807            | .004722            | 025732             |
| 9-11          | 050261            | 006556             | 004672           | 003547             | 007243             | 013090             |
| 12-15         | .014352           | 003905             | 002478           | .016856            | .002545            | 009421             |
| 16-20         | •009292           | 000946             | 005199           | 014596             | .005942            | 001843             |
| 21-27         | 009593            | 000060             | 002767           | 009655             | 002093             | 002275             |
| 28-36         | 003880            | 000752             | .000400          | 007016             | .000595            | 001704             |
| 37-47         | .000957           | .000257            | 000320           | .002227            | .000080            | 001109             |
| 48-60         | .000382           | .000346            | .000062          | 001554             | .000009            | 000012             |
| POWER SPEC    | TRUM              |                    |                  |                    |                    |                    |
| K             | U                 | ٧                  | W                | T                  | N                  | RHO(W)             |
|               | 10E-01            | 10E-01             | 10E-01           | 10E-02             | 10E-01             | 10E-02             |
| 0             | .042555           | .029134            | .009290          | .029432            | .034616            | .012263            |
| 1             | . 352331          | . 258293           | .155584          | .233791            | .300892            | .109603            |
| 2.            | .391635           | .349511            | .278793          | .246409            | .454615            | .160159            |
| 3             | .371649           | .377091            | .327269          | .240302            | .581337            | .198593            |
| 4             | . 236743          | .217788            | .193363          | .184358            | .404739            | .140888            |
| 5             | .160763           | .131543            | .117098          | .139501            | -214330            | .081181            |
| 6             | .146262           | .148170            | .109838          | .118718            | .155058            | .059864            |
| 7-8           | .098482           | .120169            | .084327          | .082711            | .129451            | .048290            |
| 9-11          | .068318           | • 056902           | .049662          | .034927            | .085240            | .029970            |
| 12-15         | .034134           | .030413            | .029787          | .029517            | .053607            | .019287            |
| 16-2C         | .021764           | -023992            | .021684          | .014870            | .024977            | .008984            |
| 21-27         | .014462           | .014753            | .012532          | .009931            | .018480            | .006614            |
| 28-36         | .008803           | .009876            | .006780          | .005104            | ·011298            | .003814            |
| 37-47         | .005337           | .005309            | .004839          | .003121<br>.001897 | .007833<br>.004702 | .002677            |
| 48-6C         | .003695           | .003681            | .003164          | *001971            | .004102            | • 001369           |

RUN NC. 78A 16M 10-25-62 0806-0850 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

## COSPECTRUM

| K     | U, N    | U,RHO(W) | V , N   | V,RHO(W) | W <sub>P</sub> N | W, RHO(W) | T,N     | T,RHO(W) | N,RHO(W) |
|-------|---------|----------|---------|----------|------------------|-----------|---------|----------|----------|
|       | 10E-0L  | 10E-02   | 10E-02  | 10E-02   | 10E-01           | 10E-02    | 10E-02  | 10E-02   | 10E-01   |
| 0     | 096594  | 025140   | 021520  | 002750   | .006800          | .014567   | .039106 | .011612  | .006296  |
| 1     | 308168  | 133540   | .016178 | .025069  | .102801          | .203602   | .401511 | .107078  | .055866  |
| 2     | .055131 | 059018   | .251693 | .077666  | .197458          | .379610   | .573623 | .137135  | .083806  |
| 3     | .093450 | 019901   | .473275 | .111529  | .246765          | .472209   | .671292 | .151684  | .106013  |
| 4     | 316074  | 075769   | .282275 | .058087  | .148731          | .287231   | .503329 | .114496  | .074447  |
| 5     | 445090  | 102463   | .078577 | .017539  | .070628          | .137843   | .354544 | .082514  | .041024  |
| 6     | 253977  | 067552   | .150420 | .032066  | .042327          | .081515   | .265954 | .064446  | .029848  |
| 7-8   | 080090  | 026044   | 020663  | 005492   | .028421          | .056038   | .203695 | .047832  | .024568  |
| 9-11  | 070703  | 019100   | 084651  | 014667   | .016664          | .031420   | .112992 | .024555  | .015808  |
| 12-15 | 043157  | 012713   | 029042  | 004180   | .017746          | .033155   | .075618 | .017505  | .010005  |
| 16-20 | 028065  | 008079   | 023602  | 002948   | .007582          | .013371   | .034208 | .008163  | .004652  |
| 21-27 | .004257 | 000076   | 013355  | 001671   | .005274          | .010141   | .025594 | .005905  | .003441  |
| 28-36 | .000370 | 000528   | .004467 | .001110  | .001889          | .003138   | .012549 | .002930  | .002042  |
| 37-47 |         | 000220   |         |          | .001057          | .001936   | .009148 | .002037  | .001428  |
| 48-60 | 003119  | 000816   | .000977 | .00374   | .000633          | .001036   | .004947 | .001142  | .000844  |

## QUADRATURE SPECTRUM

| K     | U, N    | U,RHO(W) | V + N   | V.RHO(W.) | W, N     | W, RHO(W) | T,N      | T,RHO(W) | N,RHO(W) |
|-------|---------|----------|---------|-----------|----------|-----------|----------|----------|----------|
|       |         |          |         |           |          |           |          |          |          |
|       | 105 01  | 105 03   | 105 00  | 105 03    | 105 03   | 105 03    | 105.00   | 105 03   | 105 33   |
|       | 10E-01  | 10E-02   | 10E-02  | 10E-03    | 10E-02   | 10E-03    | 10E-02   | 10E-03   | 106-03   |
| 1     | .034162 | .053392  | .267024 | -644637   | 216231   | - 573376  | - 141803 | - 230315 | .254224  |
| 2     |         |          |         |           |          |           |          |          |          |
| 2     |         | 073132   | .408770 |           |          |           | 012380   |          | .020339  |
| 3     | 131928  | 248434   | .479573 | .765817   | .236543  | .140918   | .049814  | .079586  | 091172   |
| 4     | 095112  | 194399   | .140878 | .155712   | .079048  | .112685   | 020612   | 033741   | .034466  |
| 5     | 024143  | 058749   | 039012  | 108286    | 095555   | 197325    | 049354   | 080571   | .084259  |
|       |         |          |         |           |          |           |          |          |          |
| 6     | 005526  | 017437   | 037730  | 057927    | 004261   | 082244    | 045419   | 074263   | .079005  |
| 7-8   | .005053 | .002873  | 028286  | 036617    | 003441   | 051363    | 035601   | 057005   | .063718  |
| 9-11  | .006021 | .008792  | .035706 | .046529   | 078278   | 148620    | 010139   | 016422   | .019137  |
| 12-15 | .002645 | .003820  |         |           | 049035   |           |          |          | .016734  |
| 16-20 | .001055 |          | 004220  |           | 014943   |           |          |          | .002170  |
| 10-20 | .001055 | .000779  | 004220  | .007770   | -•014343 | 021016    | 000423   | 000281   | .002170  |
|       |         |          | 400070  |           | *        |           |          |          |          |
| 21-27 | 000286  |          |         |           | 005486   |           |          |          | 000112   |
| 28-36 | .000633 | .001055  | 003931  | 005297    | 013515   | 024952    | 000283   | 000500   | .000638  |
| 37-47 | .000501 | .000764  | .001175 | .002129   | 006274   | 011985    | 000951   | 001474   | .001994  |
| 48-60 | .000323 | .000526  | 001787  | 002990    | 002373   | 003694    | 000415   | 000679   | .000950  |

RUN NC. 78A 16M 10-25-62 0806-0850 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

| H        | U,Y      | U,W                                     | U,T     | V.M     | V, T               | W.T                |
|----------|----------|---|---------|---------|--------------------|--------------------|
|          | 0.31377  | 0.18965                                 | 0.90966 | 0.20691 | 0.99242            | 0.59985            |
|          | 10E 00   | 10E 00                                  | 10E-01  | 10E 00  | 10E-01             | 10E-01             |
| 0        | 106628   | 214027                                  | 527384  | 115455  | 110971             | .319861            |
| ì        | 096589   | 114031                                  | 444260  | 112574  | 137274             | .095738            |
| 2        | 021647   | 084315                                  | 334807  | 094431  | 170098             | .049268            |
| 3        | .052298  | 065987                                  | 202743  | 065915  | 152643             | .020390            |
| 4        | .113911  | .006547                                 | 081032  | 055546  | 113299             | .028050            |
| ₹        | • 113711 | *************************************** |         | 0033310 | •••••              |                    |
| 5        | .097850  | .027867                                 | 103833  | 030382  | 075866             | .021388            |
| 6        | .090083  | .014796                                 | 062497  | -020177 | 070188             | 061043             |
| 7        | .118902  | 024645                                  | 054158  | .023444 | 079616             | 010117             |
| 8        | .130044  | .033357                                 | 011227  | .047285 | 043513             | .003544            |
| 9        | .150549  | .087436                                 | .087031 | .031603 | 019185             | 022815             |
| 10       | .117177  | .030854                                 | .144233 | .052203 | .021795            | .022377            |
| īĭ       | .072059  | 012187                                  | .160529 | .058177 | .074207            | .018225            |
| 12       | 020640   | . 024128                                | .156854 | .052074 | .123848            | .029065            |
| 13       | 104552   | .021631                                 | .129093 | .098591 | .201789            | .037973            |
| 14       | 110720   | .030906                                 | .161540 | 016001  | .129242            | .010333            |
|          |          |   | 140103  | 010503  | 042227             | 002544             |
| 15       | 057082   | .006055                                 | -140193 | 010592  | .062327            | .002544            |
| 16       | 061164   | .070967                                 | .190471 | .076604 | .049340            | .013436<br>.029290 |
| 17       | 078500   | -045143                                 | .237806 | .050895 | .047592            | .011517            |
| 16       | 141893   | .017176                                 | .210708 | .035493 | .101537<br>.129820 | 069109             |
| 19       | 178994   | 010876                                  | .211384 | 009815  | .127820            |                    |
| 20       | 236768   | 002212                                  | .178301 | .055054 | . 152453           | 070884             |
| 21       | 235623   | 005451                                  | .094368 | .099431 | .188867            | 025057             |
| 22       | 209785   | 038622                                  | .045803 | -072576 | .185133            | 044688             |
| 23       | 216292   | 047181                                  | .002970 | .084421 | .148929            | 040486             |
| 24       | 153378   | 033236                                  | 017456  | .040266 | .087851            | 030266             |
| 25       | 101853   | 001741                                  | 028367  | .042194 | .066830            | .059236            |
| 26       | 060683   | 045337                                  | 053570  | .023854 | .060519            | .035698            |
| 27       | 011034   | 049424                                  | 022529  | 063957  | .031358            | 037308             |
| 28       | .080562  | 033070                                  | .037793 | 045227  | .023446            | 025904             |
| 29       | .191381  | 001302                                  | .083033 | 028952  | 022655             | .020199            |
| 30       | .209028  | .071807                                 | .078448 | 034252  | 027045             | 087110             |
| COSPECTR | JM       |   |         |         |                    |                    |
| K        | U,V      | U, W                                    | U,T     | V, W    | V.T                | W.T                |
|          | 108-01   | 10E-02                                  | 10E-01  | 10E-02  | 10E-02             | 10E-02             |
| 0        | .011698  | 096183                                  | 015522  | 013729  | 079843             | .067437            |
| 1        | .188979  | 528304                                  | 136336  | 713781  | 901047             | .230580            |
| 2        | .047423  | 575425                                  | 124089  | 752429  | 680621             | .109927            |
| 3        | 153538   | 545228                                  | 074019  | 591295  | 246276             | .100040            |
| 4        | 139970   | 378058                                  | 035005  | 430300  | 003072             | .162308            |
| 5        | 088839   | 372066                                  | 030674  | 138829  | .138522            | .147526            |
| 6        | 039635   | 265952                                  | 017631  | 008948  | .048011            | .086129            |
| 7        | .008840  | 115709                                  | 020121  | 042613  | 156903             | .077293            |
| 8        | 036056   | 140199                                  | 031740  | 010643  | 045463             | .049421            |
| 9-11     | 042690   | 159564                                  | 014112  | .047334 | .092127            | .058553            |
| 12-14    | .000773  | .105250                                 | .000298 | 073015  | .070161            | .076727            |
| 15-21    | .006315  | 127345                                  | .000402 | .003846 | .001581            | .049587            |
| 22-30    | .003008  | 104159                                  | 003834  | .011825 | .005742            | .084539            |

RUN NO. 78A 16M 10-25-62 0806-0850 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

| M       | U.N     | U,RHO(W) | V,N     | V,RHO(W) | W. N     | W, RHD(W) | T+N     | T,RHO(W) | N,RHO(W) |
|---------|---------|----------|---------|----------|----------|-----------|---------|----------|----------|
|         | 0.35604 | 0.67241  | 0.38843 | 0.73358  | 0.23478  | 0.44340   | 0.11261 | 0.21268  | 0.83241  |
|         | 10E 00  | 10E-01   | 10E 00  | 10E-01   | 10E 00   | 10E-01    | 10E 00  | 10E-01   | 10E-01   |
| 0       | 298981  | 383666   | 132289  | 140177   | .490576  | .497651   | .503896 | .674240  | .977627  |
| ì       |         |          | 143613  |          | -208992  | .202563   | -290660 | .412704  | .582261  |
| 2       |         |          | 151413  |          | . 059569 |           | .205078 | . 295869 | .325583  |
| 3       |         |          | 118551  |          | .063594  | .059917   | .191257 | .247857  | .306491  |
| 4       |         |          | 062988  |          | .062781  | .060826   | .130067 | .154312  | .166315  |
|         |         |          |         |          |          |           |         |          |          |
| 5       |         |          | 033174  |          |          |           | .128963 | .140451  | .055303  |
| 6       |         |          |         |          | 089718   |           | .045651 |          | 068378   |
| 7       |         | 001695   | .044443 |          | 092483   |           | .031347 |          | 143748   |
| 8       | .022022 | .016178  | -089705 |          | 090250   |           | -004162 |          | 193133   |
| 9       | .109863 | .115091  | .061628 | .047000  | 111303   | 100874    | 060097  | 078770   | 201193   |
| 10      | .120403 | .138070  | .084560 |          |          |           |         | 052739   |          |
| 11      | .094687 | -120405  | .116957 |          |          |           |         | 081659   |          |
| 12      | .082816 | .109274  | .098859 | .114846  | 041346   | 028701    | 072366  | 119434   | 242335   |
| 13      | .098552 | .115679  | .076049 | .113987  | 004662   | .004882   | 076632  | 110125   | 259506   |
| . 14    | .154887 | .171361  | .013703 | .043510  | .005121  | .006482   | 153008  | 182083   | 248267   |
| 15      | .156583 | .167657  | .001101 | .016557  | 011961   | 010056    | 176973  | 194760   | 175620   |
| 16      | .184069 | -203184  | .011365 | .021927  |          |           |         | 219318   |          |
| 17      | .168579 |          | 006965  | .005694  | .054291  |           |         | 212582   |          |
| 18      | .103515 | .139918  | .019475 | .041412  | .035914  |           |         | 162271   | .014888  |
| 19      | .085225 |          | 006330  |          |          |           |         | 220607   |          |
|         |         |          |         |          |          |           |         |          |          |
| 20      | •037759 |          | 005769  |          |          |           |         | 148825   | .079127  |
| 21      | 018795  | .007147  | .036297 |          |          |           |         | 093675   | .086460  |
| 22      | 056743  |          | .068956 |          |          |           |         | 068338   | .064018  |
| 23      | 075605  |          | -089431 |          | 069948   |           |         |          | .106558  |
| 24      | 093937  | 085302   | .078421 | .088172  | 073217   | 069436    | .006208 | 019395   | .037420  |
| 25      | 088663  | 083635   | .068577 | .074309  | .018691  | .030789   | .068620 | .051063  | .075944  |
| 26      | 070629  | 073748   | .085125 | .087207  | .053575  | .054712   | .098717 | .074121  | .108751  |
| 27      | 049625  | 047940   | .031624 | .033988  | 020047   | 025999    | .044665 | .013959  | .040689  |
| 28      | 073631  | 053002   | .005529 | .009971  | 013895   | 017695    | .074508 | .039501  | .050781  |
| 29      | 031584  | 006297   | 038372  | 038815   | .036364  | .036219   | .083044 | .040550  | .062563  |
| 30      | .074195 | .082699  | 015439  | 019892   | .006854  | 015333    | 011220  | 048778   | 011385   |
| COSPECT | RUM     |          |         |          |          |           |         |          |          |
|         |         |          |         |          |          |           |         |          |          |
| K       | U, N    | U,RHO(W) | V,N     | V,RHO(W) | W, N     | W, RHO(W) | T,N     | T,RHO(W) | N.RHO(W) |
|         | 10E-01  | 10E-02   | 10E-01  | 10E-02   | 10E-01   | 10E-02    | 10E-01  | 10E-02   | 10E-01   |
| 0       | 031630  | 078825   | 012005  | 033781   | .017886  | .040973   | .021874 | .054955  | .013173  |
| ì       |         |          | 163109  |          | .100359  | .204230   | .145677 | .359835  | .108055  |
| 2       |         |          | 182004  |          | .104425  | .189327   | .119337 | .294024  | .139806  |
| 3       |         |          | 192324  |          | .139267  | .243410   | .059000 | .165023  | .144183  |
| 4       | 092627  | 212712   | 124165  | 200889   | .133142  | .244323   | .022227 | .077805  | .080349  |
| 5       | 094239  | 207235   | 009801  | .009164  | .070463  | .140362   | .033855 | .083030  | .042065  |
| 6       | 058311  |          | .016015 | .034439  | .031689  | .066690   | .022627 | .058591  | .034717  |
| 7       | 001403  |          |         | 026438   | .027570  | .058533   | .007389 | .036750  | .025592  |
| 8       |         |          | 001467  |          | .020815  | .042408   | .007951 | .035138  | .015452  |
| 9-11    | 006705  |          | .015611 | .041852  | .041231  | .076976   | .016137 | .036960  | .020895  |
|         |         |          |         |          |          |           |         |          |          |
| 12-14   | -020674 | .033731  | .001961 | .015714  | .057178  | .106206   | .012007 | .025618  | -018660  |
| 15-21   | .001792 | .003648  | .005766 | .009504  | .031839  | .060416   | .010826 | .023854  | .020447  |
| 22-30   | 011574  | 025382   | .001987 | -004510  | .029122  | .062075   | .012626 | .028838  | .011042  |

RUN NO. 78A 16M 10-25-62 0806-0850 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

## NORMALIZED QUADRATURE COVARIANCE

| М         | U,V                                     | U.W                                     | U.T     | V.W                                     | V , T    | W,T     |
|-----------|---|---|---------|---|----------|---------|
|           | 0.31377                                 | 0.18965                                 | 0.90966 | 0.20691                                 | 0.99242  | 0.59985 |
|           | 10E 00                                  | 10E 00                                  | 10E-01  | 10E 00                                  | 10E-01   | 10E-01  |
|           | 105 00                                  | 100 00                                  | 105-01  | 105 00                                  | 105-01   | 105-01  |
| 1         | .124385                                 | 140120                                  | 067299  | .107563                                 | .100149  | 008686  |
| ž         | .166123                                 | 047473                                  | 064398  | .162247                                 | .179709  | .025152 |
| 3         | .169264                                 | .024730                                 | 116805  | .121929                                 | .192383  | .109055 |
| 4         | .162092                                 | .071666                                 | 156338  | .120915                                 | .177646  | .152873 |
| 5         | .162181                                 | .050556                                 | 160259  | .143260                                 | .168750  | .127927 |
| •         | .102101                                 | . 0,0,0                                 |         | • 143200                                | . 100170 | 1121721 |
| 6         | .156770                                 | .093482                                 | 110763  | .181028                                 | .168030  | .134292 |
| 7         | .119316                                 | .033567                                 | 088579  | .182253                                 | .109681  | .089052 |
| 8         | .109740                                 | .081793                                 | 049974  | .189304                                 | .086408  | .117891 |
| ğ         | .082203                                 | .156119                                 | 025224  | .177709                                 | .078709  | .129453 |
| 10        | .019835                                 | .081605                                 | 025294  | .099737                                 | .011254  | .091033 |
|           | ******                                  | • | 1023271 | •••                                     | ******   | .071033 |
| 11        | 076849                                  | .076730                                 | 013149  | .055054                                 | 059123   | .145057 |
| 12        | 168053                                  | .128545                                 | .003263 | .006802                                 | 112087   | .111305 |
| 13        | 180519                                  | .148296                                 | .030866 | .014467                                 | 130215   | .058851 |
| 14        | 138682                                  | .038587                                 | .036332 | .014121                                 | 161331   | .013874 |
| 15        | 111945                                  | 041332                                  | 008171  | .009028                                 | 146619   | .063399 |
| • •       | • |   | ******* | *************************************** | ******   |         |
| 16        | 139733                                  | .010091                                 | 010553  | 004659                                  | 080638   | .048562 |
| 17        | 112618                                  | .004672                                 | 000713  | 006527                                  | 071216   | .034701 |
| 18        | 070430                                  | .012905                                 | .072257 | 020315                                  | 038215   | 016100  |
| 19        | 044631                                  | 031200                                  | .039863 | .018894                                 | .058223  | 011386  |
| 20        | 079265                                  | 100060                                  | .043961 | 037454                                  | .068247  | 071189  |
| 20        | -8017203                                |   | *043701 | 1031434                                 | * 000247 |         |
| 21        | .026315                                 | 125644                                  | .063519 | 010835                                  | .102606  | 087762  |
| 22        | . 080454                                | 026939                                  | .059541 | 085762                                  | .117036  | 107495  |
| 23        | .095415                                 | 022605                                  | 001338  | 107013                                  | .133899  | 127532  |
| 24        | .140308                                 | 010483                                  | 020538  | 058820                                  | .185774  | 111140  |
| 25        | .164997                                 | 032610                                  | 072367  | 103311                                  | .188846  | 083206  |
| .,        | • 204771                                | *************************************** | ******* | .103311                                 | * 100040 | .005200 |
| 26        | .158189                                 | 043317                                  | 140234  | 121031                                  | .217230  | 036571  |
| 27        | .161879                                 | 154943                                  | 142088  | 030267                                  | .270705  | 088871  |
| 28        | .186439                                 | 136957                                  | 103373  | .077792                                 | .281977  | 132740  |
| 29        | .176127                                 | 139684                                  | 093544  | .035564                                 | .259787  | 084624  |
| 30        | 150023                                  | 157147                                  | 070347  | 047910                                  | .155220  | 073450  |
|           |   |   |         |   |          |         |
| QUADRATUR | 5 SPECTRUM                              |   |         |   |          |         |
| K         | U• V                                    | U, W                                    | U,T     | V.W                                     | V.T      | W, T    |
|           | 10E-01                                  | 10E-02                                  | 10E-02  | 10E-01                                  | 10E-02   | 10E-02  |
| 1         | .004427                                 | . 986068                                | 286485  | .160560                                 | .208579  | .454766 |
| Ž         | .143584                                 | .758439                                 | 382786  | . 154534                                | .411609  | .378028 |
| 3         | .280339                                 | .099515                                 | 415898  | .114730                                 | .871864  | .163846 |
| 4         | .166791                                 | 364539                                  | 275803  | .056879                                 | -586853  | .045758 |
| 5         | .034522                                 | 237552                                  | 199187  | .009623                                 | .119603  | .043199 |
| •         | .03,722                                 |   | ******* | 100,023                                 | *******  |         |
| 6         | .004322                                 | 115988                                  | 056376  | 009237                                  | .062770  | .004394 |
| 7         | .019723                                 | 151668                                  | .013519 | .011311                                 | .142897  | .011721 |
| 8         | .060168                                 | 228970                                  | 002300  | .027977                                 | .141278  | 007506  |
| 9-11      | .024636                                 | 290082                                  | .052949 | .029441                                 | .043885  | 071996  |
| 12-14     | .022013                                 | 338811                                  | 020546  | .012798                                 | .031824  | 038810  |
|           |   |   |         |   |          |         |
| 15-21     | .002810                                 | 142360                                  | 038841  | .000103                                 | 015334   | 003858  |
| 22-30     | .002534                                 | 080573                                  | 022264  | 003006                                  | 003685   | .007553 |

RUN NO. 73A 16M 10-25-62 0806-0850 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

## NORMALIZED QUADRATURE COVARIANCE

| M  | U, N    | U,RHO(W) | V.N     | V,RHO(W) | W, N    | W, RHG(W) | T,N     | T.RHO(W) | N <sub>e</sub> RHO(¥) |
|----|---------|----------|---------|----------|---------|-----------|---------|----------|-----------------------|
|    | 0.35604 | 0.67241  | 0.38843 | 0.73358  | 0.23478 | 0.44340   | 0.11261 | 0.21268  | 0.83241               |
|    | 10E 00  | 10E-01   | 10E 00  | 10E-01   | 10E 00  | 10E-01    | 10E 00  | 10E-01   | 10E-01                |
|    |         |          |         |          |         |           |         |          |                       |
| 1  | 033095  |          | .068868 | -100404  |         |           | 051553  |          | .012362               |
| 2  |         | 009465   | .141405 | .164820  | .002040 |           | 090295  |          | .021865               |
| 3  |         | 030035   | .132609 |          | 004736  |           | 121736  |          | .029647               |
| 4  |         | 105077   | .155872 | .176855  | .029143 |           | 111207  |          | .027312               |
| 5  | 133996  | 153448   | .188717 | .202693  | .084771 | .103499   | 072136  | 061890   | .017486               |
| 6  | 091753  | 105094   | .166401 | .183268  | .118720 | . 134193  | 058553  | 050.70   | .014458               |
| 7  | 100452  | 107110   | .110610 | .121326  | .106182 |           | 052637  |          | .012855               |
| 8  | 059752  | 062751   | -111028 | .116075  | .086079 |           | 084077  |          | .020143               |
| 9  | 006887  | 011669   | .081207 | .089189  | -041176 |           | 082831  |          | .020360               |
| 10 | .028617 | .018413  | .025946 | .025857  | 017269  | .007256   | 073767  | 063609   | .018033               |
| 11 | .079730 | -065129  | 011702  | 023507   | .016096 | .048893   | 068396  | 059193   | .016349               |
| 12 | .131557 |          |         | 063706   | 023575  |           |         | 035426   |                       |
| 13 | -142126 |          |         | 079002   |         |           | .002936 |          | 001103                |
| 14 | .104708 | .098818  | 084240  | 110962   | 015468  | 009838    | .011365 | -009510  | 002890                |
| 15 | .031341 |          | 079991  |          | .069577 | .075325   | .030368 |          | 007383                |
| 16 | .008069 | .004422  | 044984  | 058254   | -071027 | - 072126  | .012686 | -010787  | 003266                |
| 17 | .008170 |          |         | 050232   |         |           |         | 007739   |                       |
| 18 | .033485 | .046193  |         | 005711   |         |           | .002902 |          | 000655                |
| 19 | .022260 | .029286  |         |          | 060563  |           | -010005 |          | 002689                |
| 20 | .007934 | .017897  |         |          | 086421  |           | .005547 |          | 001675                |
|    |         |          |         |          |         |           |         |          |                       |
| 21 | 001661  |          | .053310 |          |         | 054324    |         |          | 010494                |
| 22 | .044153 |          | .051853 |          | 081757  |           | .032640 |          | 007656                |
| 23 | .029742 | .025205  | .009530 |          | 087359  |           | .011998 |          | 003273                |
| 24 | 001868  |          | .030737 |          | 022200  |           | .007653 |          | 002238                |
| 25 | 010168  | 026741   | .004331 | .049123  | 011844  | 030164    | 014850  | 012158   | .004085               |
| 26 | 084949  | 107196   | 002378  | .050215  | .027463 | .014728   | 022292  | 018737   | .005918               |
| 27 | 149008  | 161922   | .050523 | .108693  | .014110 | 009766    | 014112  | 011771   | .003993               |
| 28 | 097632  | 109150   | .088910 | .144478  | 045031  | 070908    | 005715  | 004821   | .001885               |
| 29 | 092003  | 101883   | .099539 | .147901  | 036531  | 051294    | 002483  | 001616   | .001414               |
| 30 | 142106  | 139255   | .053289 | .083053  | 002616  | 019716    | .033258 | .028872  | 007640                |

## QUADRATURE SPECTRUM

| K      | U, N    | U,RHO(W) | V, N    | V,RHO(W) | W, N    | W, RHO(W) | T,N     | T,RHO(W)     | N+RHO(W) |
|--------|---------|----------|---------|----------|---------|-----------|---------|--------------|----------|
|        | 10E-01  | 10E-02   | 10E-01  | 10E-02   | 10E-02  | 10E-02    | 10E-02  | 10E-03       | 10E-03   |
| ı      | .036684 | .009237  | .159279 | .296775  | .534925 | .167858   | 468081  | 761974       | .834676  |
| l<br>2 | 059903  | 164881   | .191768 | .385288  | -660616 | . 174547  | 446739  | 728450       | .806576  |
| 3      | 145896  | 310162   | .260715 | .577875  | .456757 | .103319   | 358235  | 579293       | .648701  |
| 4      | 110798  | 228390   | .182526 | .399759  | .243741 | .047788   | 169992  | 273821       | -309220  |
| 5      | 000451  | 036746   | .039563 | .085302  | .045266 | .015251   | 092073  | 148171       | .165868  |
| 6      | .085917 | .128395  | .007115 | .023204  | 481930  | 076919    | 114595  | 185856       | .202078  |
| 6<br>7 | .066083 | -108941  | .029930 | .074976  | 533558  | 084079    | 188184  | 305435       | .335845  |
| 8      | .014094 | .022107  | .016700 |          |         |           |         | 254461       | -283675  |
| 9-11   | -014484 | .033080  | .011295 | .025735  |         |           |         | 000832       | -        |
| 12-14  | 020534  | 037050   | .019522 | .037309  | .127814 |           |         | <del>-</del> | 068250   |
| 15-21  | 021414  | 041679   | .002641 | .001504  | .003029 | 000200    | .000469 | .001027      | 001148   |
| 22-30  | 003280  | 009209   |         | 006187   |         |           |         |              |          |

RUN NC. 78A 16M 10-25-62 0806-0850 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

## NORMALIZED AUTOCOVARIANCE

| H        | U                 | ٧                 | W                 | T                 | N                 | RHO(W)            |
|----------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
|          | 0.28760<br>10E 00 | 0.34231<br>10E 00 | 0.12506<br>10E 00 | 0.28772<br>10E-01 | 0.44076<br>10E 00 | 0.15721<br>10E-01 |
| 0        | 1.000000          | 1.000000          | 1.000000          | 1.000000          | 1.000000          | 1.000000          |
| i        | .587006           | .700784           | -298030           | .674975           | •598236           | .598281           |
| ž        | .291533           | .466359           | .001912           | .497338           | .322353           | .350305           |
| 3        | .143390           | . 356942          | 017922            | • 348842          | .304087           | .322192           |
| 4        | .031228           | .245659           | .113955           | .180157           | . 157464          | .179586           |
| 5        | 066967            | .085838           | .053367           | .126458           | .028197           | .081158           |
| 6        | 044088            | 076108            | 145845            | .054785           | 092660            | 046175            |
| 7        | 060685            | 122129            | 086501            | .034284           | 176784            | 114698            |
| 8        | 098920            | 189071            | 102379            | 002227            | 227099            | 164357            |
| 9        | 145794            | 296460            | 100297            | -,112830          | 295231            | 247725            |
| 10       | 144883            | 357616            | 051841            | 132190            | 274403            | 218812            |
| 11       | 168278            | 373208            | 085391            | 195543            | 251067            | 211598            |
| 12       | 189396            | 292259            | 080781            | 236993            | 263016            | 236102            |
| 13       | 112916            | 209651            | 002298            | 182256            | 281484            | 248902            |
| 14       | 142575            | 154377            | 045172            | 210203            | 246377            | 256934            |
| 15       | 223714            | 118711            | 117410            | 178097            | 154565            | 197922            |
| 16       | 219659            | 111233            | 105604            | 185456            | 074508            | 150216            |
| 17       | 214282            | 027809            | 056789            | 197023            | .013173           | 082040            |
| 16       | 218869            | .035058           | 049005            | 153751            | .058960           | 026449            |
| 19       | 154854            | .110620           | 046697            | 230106            | .036626           | 066737            |
| 20       | 087607            | -169823           | 085376            | 215526            | .124815           | .031340           |
| 21       | 004478            | .143331           | 146726            | 181795            | .117796           | .050890           |
| 22       | .029402           | . 137592          | 127567            | 165924            | .083995           | .038281           |
| 23       | .104757           | . 094044          | 154696            | 085244            | .112809           | .094764           |
| 24       | .098134           | 007392            | 089185            | 104771            | .041019           | .028184           |
| 25       | .102572           | 086664            | .095219           | 034114            | .068560           | .078061           |
| 26       | . 153501          | 087103            | .194047           | 043905            | .098482           | .111567           |
| 27       | .066804           | 130697            | .160045           | 099871            | .034567           | .038430           |
| 28       | 079680            | 179929            | .092461           | 099755            | .037875           | .053274           |
| 29       | 049446            | 280522            | .227677           | 125638            | .049464           | .063484           |
| 30       | 029613            | 336076            | .090814           | 161302            | 009523            | 022020            |
| POWER SE | PECTRUM           |                   |                   |                   |                   |                   |
| K        | U                 | ٧                 | W                 | T                 | N                 | RHO(W)            |
|          | 10E-01            | 10E-01            | 10E-02            | 10E-02            | 10E-01            | 10E-02            |
| 0        | .028225           | .095453           | .062489           | .109949           | .057367           | .031092           |
| i        | -364912           | .557614           | .902287           | -696431           | .507307           | .238982           |
| 2        | .429188           | .650062           | .974307           | .565187           | .732741           | .278616           |
| 3        | . 347094          | .724716           | .877736           | .388200           | .826983           | .262544           |
| 4        | .229427           | .406007           | .854639           | .232734           | .472775           | .143764           |
| 5        | . 238665          | .156530           | .695423           | .156876           | .222607           | .082933           |
| 5        | .185719           | .108149           | .514434           | .121041           | .189608           | .066700           |
| 7        | .141268           | .076465           | .438441           | .136195           | .150127           | .048030           |
| 8        | .154419           | .103809           | .317859           | .123634           | .087041           | -031231           |
| 9-11     | .103989           | .065520           | .526475           | .060204           | .111453           | .040395           |
| 12-14    | .063216           | .071803           | .751531           | .034619           | .102273           | -034717           |
| 15-21    | . 058366          | .053628           | .405741           | .035277           | .114574           | .037315           |
| 22-30    | .041606           | .034322           | .413054           | .047076           | .054308           | .023019           |

PUN NO. 78A 40M 10-25-62 0806-0850 EST

## GROSS STATISTICS

| 4 CI C<br>Unstae<br>Land   |  | WIND SPEED<br>Sigma a<br>Sigma e  | 3.55<br>14.0<br>11.4                         | DEG SOL  | D DIRECTION 313 DEG<br>AR RADIATION 0.67<br>RADIATION 0.33   |
|--|--|---|--|--|--|
|  | WITH NO<br>RUNNING MEAN  | WITH 301<br>RUNNING   |  | WITH 61 POINT<br>RUNNING MEAN  | 301 PT RUN MEAN<br>10 PT BLOCK AVG   |
| VARIANCES  |  |   |  |  |  |
| U<br>W<br>T<br>N<br>RHO(W)   | 0.11654E 01<br>0.74702E 00<br>0.32966E-00<br>0.17481E-00<br>0.16846E 01<br>0.35920E-01                                     | 0.43739<br>0.29359<br>0.33712<br>0.36521<br>0.12742                         | E-00<br>E-01<br>E-01<br>E-01                 | 0.43791E-00<br>0.25985E-00<br>0.21749E-00<br>0.14700E-01<br>0.20359E-00<br>0.69365E-02                                     | 0.49609E-00<br>0.32866E-00<br>0.20046E-00<br>0.27465E-01<br>0.28339E-00<br>0.99532E-02                                     |
| GUSTINESS RATI   | 05   |   |  |  |  |
| U<br><b>V</b><br>W   | 0.30410<br>0.24347<br>0.16174  | 0 • 238<br>0 • 186<br>0 • 152   | 30   | 0.18641<br>0.14359<br>0.13137  | 0.19840<br>0.16149<br>0.12612  |
| COVARIANCES  |  |   |  |  |  |
| U•V<br>U•W<br>U•T<br>V•W<br>V•T<br>W•T<br>U•N<br>U•RHO(W)          | -0.72746E-01<br>-0.20872E-00<br>-0.11700E-00<br>-0.83409E-01<br>0.48077E-01<br>0.45758E-01<br>-0.71977E 00<br>-0.13728E-00 |   | F-00<br>F-01<br>F-02<br>F-01                 | 0.48616E-02<br>-0.39315E-01<br>-0.42750E-01<br>-0.50088E-01<br>-0.54724E-02<br>0.12610E-01<br>-0.62855E-01<br>-0.17859E-01 | 0.22752E-01<br>-0.12845E-00<br>-0.86238E-01<br>-0.71247E-01<br>-0.27111E-02<br>0.24264E-01<br>-0.13718E-00<br>-0.37667E-01 |
| V • N V • RHO (W) W • N W • RHO (W) T • N O RHO (W) N • RHO (W) WE | -0.62037E-01<br>-0.13395E-02<br>0.22747E-00<br>0.44993E-01<br>-0.23487E-00<br>-0.64587E-02<br>0.22969E-00                  | -0.47214<br>-0.80917<br>0.12752<br>0.25550<br>0.36914<br>0.12022<br>0.65564 | E-02<br>E-00<br>E-01<br>E-01<br>E-01<br>E-01 | -0.28983E-01<br>-0.56711E-02<br>0.71807E-01<br>0.13875E-01<br>0.20041E-01<br>0.58791E-02<br>0.36441E-01<br>-0.49425E-02    | -0.44806E-01<br>-0.77339E-02<br>0.1022E-00<br>0.20903E-01<br>0.29008E-01<br>0.96356E-02<br>0.50947E-01                     |
| NORMALIZED COV   | ARIANCES   |   |  |  |  |
| U • V<br>U • W<br>!! • T<br>V • W<br>V • T<br>W • T                | -0.07796<br>-0.33673<br>-0.25921<br>-0.16808<br>0.13304<br>0.19061   | 0.025<br>-0.265<br>-0.662<br>-0.238<br>-0.021<br>0.275                      | 88<br>85<br>75<br>58                         | 0.01441<br>-0.12739<br>-0.53283<br>-0.21070<br>-0.08855<br>0.22302   | 0.05635<br>-0.40733<br>-0.73880<br>-0.27757<br>-0.02854<br>0.32700   |
| U+N U+RHO(W) V+N V+RHO(W) W+N W+RHO(W) T+N T+RHO(W) N+RHO(W)       | -0.51369<br>-0.67096<br>-0.05530<br>-0.00818<br>0.30525<br>0.41348<br>-0.43282<br>-0.08151<br>0.93374                      | -0.297<br>-0.450<br>-0.118<br>-0.108<br>0.389<br>0.417<br>0.332<br>0.580    | 72<br>13<br>39<br>46<br>75<br>68<br>06       | -0.21051<br>-0.32404<br>-0.12601<br>-0.13358<br>0.34125<br>0.35723<br>0.36634<br>0.58222<br>0.96971                        | -0.36586<br>-0.53604<br>-0.14682<br>-0.13522<br>0.42895<br>0.46796<br>0.32880<br>0.58278<br>0.95929                        |

RUN NO. 78A 40M 10-25-62 0806-0850 EST 61 POINT RUNNING MEAN. NO BLOCK AVERAGING

| HORMAL   | 2-0 COSPECTION                          | COTARTAICE           |   |                    |   |                      |
|----------|---|----------------------|---|--------------------|---|----------------------|
| M        | U•V                                     | U÷W                  | U.T                                     | V • W              | V • T                                   | w • T                |
| •        | • | •                    | • |                    |   |                      |
|          | U.33733                                 | 0.30867              | 0.80267                                 | 0.23771            | 0.61815                                 | 0.56563              |
|          | 10E U0                                  | 10E 00               | 10F-01                                  | 10E 00             | 10E=01                                  | 10E-01               |
|          |   |                      |   |                    |   |                      |
| 0        | .014433                                 | 127071               | 532975                                  | 210521             | 088483                                  | •222707              |
| 1        | .00B732                                 | 140841               | 476471                                  | 194391             | 076684                                  | .220177              |
| 2        | •017073                                 | 149288               | 383105                                  | 165246             | 066460                                  | •201955              |
| 3        | 028606                                  | 145052               | 309394                                  | 137279             | 067485                                  | •173910              |
| 4        | .038417                                 | 136053               | -•256287                                | -•113264           | 070358                                  | •139091              |
| _        | 0.4534                                  | 100/00               |   |                    | 0.40.104                                | 10/00/               |
| 5        | •045524                                 | 120429               | 209829                                  | 089396             | 0/0/94                                  | •104504              |
| 6        | •052517                                 | 108347               | -•163646<br>-•127857                    | 068989             | 061557                                  | •077848              |
| 7        | •055013<br>•058624                      | 094707<br>081826     | 093965                                  | 050761<br>043819   | 052409<br>046716                        | •057035<br>•034881   |
| 9        | .059209                                 | 069226               | 066506                                  | 034763             | 043682                                  | •018024              |
| ,        | •0,,,=0,                                |                      | - • 0000 200                            | - 1034103          |   | *******              |
| 10       | .058833                                 | 049815               | 051505                                  | 022339             | 042266                                  | •001769              |
| ii       | .054150                                 | 026943               | 024800                                  | 012803             | 033784                                  | 006574               |
| 12       | .046452                                 | 008259               | •003100                                 | 006405             | 016521                                  | 015524               |
| 13       | .040440                                 | .014904              | .026244                                 | .002064            | .004676                                 | 030395               |
| 14       | .027837                                 | .042770              | •047397                                 | .010422            | .024624                                 | 044878               |
|          |   |                      |   |                    |   |                      |
| 15       | •010704                                 | .065447              | •066811                                 | •025038            | .038390                                 | -•060275             |
| 16       | 012166                                  | .080480              | .087870                                 | •037619            | .052204                                 | 063817               |
| 17       | 030899                                  | -086628              | •110226                                 | •043104            | .066909                                 | -•059909             |
| 18       | 043119                                  | 096291               | •131769                                 | •052710            | .017443                                 | -•056301             |
| 19       | 050450                                  | •103376              | •158196                                 | •060586            | .087131                                 | -•060R83             |
|          |   |                      |   | -1                 |   | 077.07               |
| 20       | 051690                                  | •112655              | •167868                                 | •067838            | .087586                                 | -•073407             |
| 21       | 046743                                  | •115990              | •172167                                 | •071555            | .082251                                 | -•077903<br>-•073847 |
| 22       | 039738                                  | •110711<br>•102676   | •183781                                 | •073609<br>•079377 | .0/9987<br>.081328                      | -•073947<br>-•069124 |
| 23       | 044787                                  | .098676              | •196384<br>•200661                      | .091475            | .084975                                 | 064032               |
| 24       | 053854                                  | •034010              | • 5 0 0 B I                             | .091475            | •004773                                 |                      |
| 25       | 056750                                  | .082719              | •190859                                 | •103716            | .085730                                 | 059298               |
| 26       | 058947                                  | .067148              | •175950                                 | •112705            | .080989                                 | 044985               |
| 27       | 061511                                  | .048556              | •154712                                 | •118591            | .079170                                 | 028007               |
| 28       | 073148                                  | .041330              | •139180                                 | •115452            | .084951                                 | 020024               |
| 29       | 085345                                  | •039605              | •117824                                 | •106410            | ·087698                                 | 018338               |
|          |   |                      |   |                    |   |                      |
| 30       | 087045                                  | •036370              | •100812                                 | •094212            | .079706                                 | -•026308             |
| 31       | -•077777                                | •029454              | •079634                                 | .074425            | .068694                                 | 036500               |
| 32       | 073693                                  | •020316              | •064055                                 | •054092            | •060605                                 | 040396               |
| 33       | 073147                                  | •011775              | •050044                                 | •034116            | •047135                                 | -•042220             |
| 34       | 063260                                  | •001935              | •026375                                 | •021758            | .025893                                 | 038956               |
| 3.5      | 0/7144                                  | 008534               | 004770                                  | 012717             | .002191                                 | 033189               |
| 35       | 047164                                  | -•008524<br>-•019330 | •004770<br>-•008886                     | •013717<br>•010371 | 022838                                  | -•027869             |
| 36<br>37 | 028482<br>011283                        | 034985               | 009523                                  | •000718            | 044275                                  | 017639               |
| 38       | •004647                                 | 044534               | 009526                                  | 010984             | 063724                                  | 008208               |
| 39       | .015387                                 | 047145               | 012578                                  | 026214             | 078003                                  | 000368               |
| -,       |   | •••••                | *******                                 |                    | • |                      |
| 40       | .019602                                 | 038011               | 020017                                  | 041460             | 082482                                  | .00534B              |
| 41       | .025183                                 | 031872               | 034001                                  | 053371             | 084254                                  | •013732              |
| 42       | .035144                                 | 031848               | 031781                                  | 060188             | O86H77                                  | •026263              |
| 43       | .050354                                 | 327998               | 026477                                  | 064334             | 086968                                  | •027705              |
| 44       | .060973                                 | -•022769             | -•07R739                                | 062273             | 043502                                  | •020752              |
|          |   |                      |   |                    |   | 01.5.5               |
| 45       | •070460                                 | 015029               | 032859                                  | 059507             | 082560                                  | •014518              |
| 46       | •074049                                 | 009048               | 046410                                  | 053627             | 077876                                  | •011184              |
| 47       | •076580                                 | 007228               | 04R153                                  | 047382             | 069873<br>054974                        | +009536<br>+004839   |
| 48       | •068990                                 | 006251               | 038219                                  | 044922             | -                                       | 001445               |
| 49       | •069231                                 | •001358              | 031180                                  | -•043704           | 042757                                  |                      |
| 50       | •062143                                 | .006439              | 014314                                  | 039378             | 033177                                  | 006790               |
| 50<br>51 | •055421                                 | •003019              | 008306                                  | 033844             | 026540                                  | 012987               |
| 52       | .049650                                 | .004163              | 006103                                  | 036230             | 023607                                  | 012803               |
| 53       | .041661                                 | .006501              | •006132                                 | 036266             | 017284                                  | 007129               |
| 54       | .032410                                 | .014572              | •017716                                 | 027535             | 013079                                  | 002201               |
|          |   |                      | •                                       |                    |   |                      |
| 55       | .025913                                 | •022609              | •027531                                 | 025341             | 015161                                  | •005660              |
| 56       | .021885                                 | .026419              | .071481                                 | 023386             | 012534                                  | •009991              |
| 57       | .013898                                 | .025059              | .014294                                 | 021656             | 007106                                  | •013550              |
| 3        | 003659                                  | •025516              | •007593                                 | 019047             | .001/06                                 | •017736              |
| 5.1      | -•020909                                | •030856              | •002866                                 | 016365             | .009049                                 | •015759              |
|          | 0.51.55                                 | 020351               | 000157                                  | - 013770           | 005433                                  | .015476              |
| 60       | 031420                                  | •038351              | •002157                                 | -•013778           | .005633                                 | •015474              |

RUN NO. 78A 40M 10-25-62 0806-0850 EST 61 POINT RUNNING MEAN. NO BLOCK AVERAGING

| М  | U•N     | U+RHO(W) | V • N            | V+RHO(W) | W·N                | W+RHO(W)           | T • N              | T+RHO(W)           | N+R40(W)           |
|----|---------|----------|------------------|----------|--------------------|--------------------|--------------------|--------------------|--------------------|
|    | 0.29859 | 0.55137  | 0.22995          | 0.42463  | 0.21041            | 0.38855            | 0.54716            | 0.10104            | 0.3/586            |
|    | 10E 00  | 10E-01   | 10E 00           | 10E-01   | 10E 00             | 10E-01             | 10E-01             | 10E-01             | 10E-01             |
| 0  |         |          | 126203           |          | .340832            | •356929            | .366212            | •582462            | •969539            |
| 1  |         |          | 123435           |          | •314154            | .332934            | .334918            | •522694            | .86006R            |
| 2  |         |          | 117713<br>111978 |          | .260085<br>.202120 | .280872<br>.222691 | •275679<br>•220673 | •426320<br>•342104 | •684242<br>•527040 |
| 4  |         |          | 104489           |          | .152340            | .170075            | .180086            | •278882            | .40U615            |
| •  |         | •• •,    |                  | - 41075  |                    |                    | ********           | · L / BOOL         | • . • • • • •      |
| 5  |         |          | 090624           |          | .117079            | .130200            | .148841            | •227773            | .313937            |
| 6  |         |          | 067770           |          | •095616            | .104464            | .121378            | •182500            | •243698            |
| 7  |         |          | 04B463           |          | .081167            | .086115            | .095055            | •141695            | .182911            |
| 8  |         |          | 035566<br>027970 |          | .065376<br>.047092 | .066350<br>.045885 | •067868<br>•043257 | •100920<br>•065198 | •125278<br>•071277 |
| •  | •00555  | •0.4707  |                  | 40037734 | 1041072            | •047005            |                    | 1003170            |                    |
| 10 | 053109  | 060272   | 023470           | 031494   | .025127            | .022323            | .024239            | .039788            | .030799            |
| 11 |         |          | 011784           |          |                    | 000631             |                    | •011989            |                    |
| 12 |         | 007112   | .008805          |          | 023280             |                    |                    |                    |                    |
| 13 | .002872 | •009683  | .033436          |          | 051847             |                    |                    |                    |                    |
| 14 | .018770 | •028968  | •056509          | •025603  | 074035             | 076651             | 005652             | 082713             |                    |
| 15 | .032466 | .046280  | .075393          | •075617  | 089725             | 094481             | 089797             | 112234             | 128918             |
| 16 | .040066 | .058605  | .087312          | •089624  | 100166             | 104491             | 104812             | 133353             | 144693             |
| 17 | .043799 | .067879  | •095561          |          | 103385             |                    |                    |                    |                    |
| 18 | .046693 | .076040  | .104448          |          | 108765             |                    |                    |                    |                    |
| 19 | •055732 | •090595  | •112529          | •120702  | 118551             | 119864             | 106803             | -+156779           | 1/2109             |
| 20 | .065466 | .101677  | .111278          | •119682  | 121293             | 125481             | 109669             | 163704             | 189986             |
| 21 | .074290 | -110062  | 102309           |          | 119184             |                    |                    |                    |                    |
| 22 | .083767 | .121355  | .090407          | • 099685 | 115299             | 120506             | 113990             | 174121             | 240381             |
| 23 | .094495 | .134194  | .081155          |          | 107969             |                    |                    |                    |                    |
| 24 | .104021 | •143621  | •073991          | • 086655 | 103421             | 107282             | 116785             | 180584             | 290770             |
| 25 | .109834 | .146016  | .070198          | ·083479  | 101188             | 104079             | 111314             | 173232             | 302015             |
| 26 | .108471 | .141062  | .068695          | .081117  | 099213             | 098465             | 100411             | 158348             | 291995             |
| 27 | .100190 | •128283  | .071551          |          | 094167             |                    |                    |                    |                    |
| 28 | .093898 | •118748  | •070802          |          | 081070             |                    |                    |                    |                    |
| 29 | •084251 | •104722  | •062633          | •011962  | 069684             | 065690             | 071362             | 119221             | 210497             |
| 30 | .075327 | .092299  | .052586          | •067071  | 061526             | 060862             | 058864             | 100776             | 184396             |
| 31 | .063839 | .076504  | .042894          |          | 057129             |                    |                    |                    |                    |
| 32 | .045705 | .056754  | .031094          |          | 051852             |                    |                    |                    |                    |
| 33 | .030090 | .039328  | •017600          |          | 046714             |                    |                    |                    |                    |
| 34 | •019895 | .024061  | •005180          | •011655  | 042968             | 04//23             | 011/10             | -•030560           | 0/5417             |
| 35 | .008560 | .008327  | 006235           | 004698   | 034941             | 039114             | 005884             | 018753             | 053401             |
| 36 | 004616  |          | 020598           |          |                    |                    |                    |                    |                    |
| 37 |         |          | 041504           |          |                    |                    |                    |                    |                    |
| 38 |         |          | 065559           |          |                    |                    |                    | 003085             | .000181            |
| 39 | 027454  | 029376   | 088510           | -•040409 | •015/02            | •013894            | .010235            | •003922            | .010430            |
| 40 | 039433  | 039736   | 109814           | 116679   | .029745            | .027418            | .021226            | .015939            | .020332            |
| 41 | 046247  | 049563   | 123959           | 129677   | .042995            | .0409R9            | .035272            | •033623            | .027564            |
| 42 |         |          | 127613           |          | .052393            | .052434            | .041669            | .043231            | .032953            |
| 43 |         |          | 129521           |          | .067284            | .061404            | .040417            | .044322            | 038688             |
| 44 | 026844  | -,051242 | 136515           | 141162   | .068677            | .065135            | .038226            | .044471            | .046155            |
| 45 | 019917  | 026207   | 137712           | 141860   | .076309            | .070145            | .034950            | .044056            | .053692            |
| 46 |         |          | 132814           |          | .083007            | .075245            | .032174            | •041894            | .055834            |
| 47 |         |          | 123457           |          | .084860            | .076268            | .030506            | •040390            | .052677            |
| 48 |         |          | 103144           |          | .083990            | •074285            | .029309            | •040363            | .049548            |
| 49 | 001083  | 014305   | 081524           |          | .074219            | •064293            | .027176            | •039459            | .048214            |
| 50 |         |          | 064924           |          | .058536            | .049197            | .021315            | .032507            | .042896            |
| 51 | .001923 |          | 053396           |          | .046446            | .037017            | •009517            | ·018108            | .027620            |
| 52 | .010865 |          | 046576           |          | .040078            |                    | 003004             | •002553            | .004469            |
| 53 | .024581 |          | 037684           |          | .030250            |                    | 015650             |                    |                    |
| 54 | .036030 | •036409  | 027106           | 077447   | .021449            | •017654            | 027384             | -•026427           | 042491             |
| 55 | .038331 | .040786  | 017580           | 019679   | .010770            | .010426            | 037556             | 037159             | 06>062             |
| 56 | .031180 |          | 005677           | 008524   | 001602             | .000704            | 044167             | 043803             | 076424             |
| 57 | .016510 | .018201  | .008878          |          | 011783             |                    |                    |                    |                    |
| 58 | .002025 | .003904  | •022561          |          | 019863             |                    |                    |                    |                    |
| 59 | 003598  | 002178   | .032226          | •029952  | 029200             | 021176             | 035427             | -•036160           | 080730             |
| 60 | 002090  | 001460   | .039004          | •035107  | 034148             | 025621             | 033458             | 034347             | 083267             |
|    |         |          |                  |          |                    |                    |                    |                    |                    |

RUN NO. 78A 40M 10-25-62 OR06-0850 EST 61 POINT RUNNING MEAN. NO BLOCK AVERAGING

| м  | U•V               | U•W                                      | U+T               | V • W                                   | V • T             | WoT                      |
|----|-------------------|--|-------------------|---|-------------------|--------------------------|
|    | 0 2222            | 0.209.7                                  |                   |   |                   | _                        |
|    | 0.33733<br>10E 00 | 0.30867<br>10E 00                        | 0.80267<br>10E-01 | 0.23771<br>10E 00                       | 0.61815<br>10E-01 | 0.56563<br>10E-01        |
| 1  | .005795           | 010464                                   | -•030398          | 002934                                  | .017844           | 018683                   |
| 2  | .013465           | 018299                                   | 046357            | .001462                                 | .035039           | 021492                   |
| 3  | .020526           | 028582                                   | 055334            | •004799                                 | .047610           | 020202                   |
| 4  | .035144           | 042136                                   | 066974            | •003301                                 | .055794           | 019630                   |
| 5  | •052032           | 057052                                   | 073205            | •008562                                 | .061877           | 012976                   |
| 6  | •069090           | 070315                                   | 076747            | •013979                                 | .066931           | -•006612                 |
| 7  | .082574           | 081497                                   | 082875            | •019743                                 | .064548           | 001717                   |
| 8  | •095430           | 096021                                   | 090868            | •018991                                 | .057611           | •000167                  |
| 9  | •100641           | 102753                                   | 092550            | •016362                                 | .048645           | •003677                  |
| 10 | •096755           | 105260                                   | 087723            | •012206                                 | .042413           | •005160                  |
| 11 | •095906           | 104425                                   | 087007            | •00770B                                 | .034604           | •007027                  |
| 12 | •096860           | 097376                                   | 082278            | •006135                                 | .030871           | •003910                  |
| 13 | •097370           | 083219                                   | 069022            | •007162                                 | .030399           | •004389                  |
| 14 | .093944           | 068757                                   | 059512            | •007641                                 | .031119           | •011790                  |
| 15 | •092932           | 049596                                   | 050158            | 000705                                  | .028830           | •021600                  |
| 16 | •093170           | 025724                                   | -•040021          | 011349                                  | .026035           | •035711                  |
| 17 | .092932           | 010340                                   | 025406            | 026620                                  | .027015           | •036P81                  |
| 18 | •090291           | .004125                                  | 018570            | 036110                                  | .027933           | •027447                  |
| 19 | .074549           | .010868                                  | 017791            | 040450                                  | .022470           | •017374                  |
| 20 | •047612           | •011907                                  | 014673            | 041107                                  | .012198           | •011618                  |
|    |                   | -  | - 014073          | -0041107                                | •012170           | •011616                  |
| 21 | •020363           | .002076                                  | -•007791          | 040410                                  | .002106           | <ul><li>001968</li></ul> |
| 22 | •001280           | 004667                                   | • 004669          | 037174                                  | 007021            | -•004394                 |
| 23 | 012649            | 004099                                   | ·015086           | -•033627                                | 012557            | -•008361                 |
| 24 | 025315            | 004768                                   | •025415           | 031789                                  | 012H71            | -•014103                 |
| 25 | 036396            | -• 005635                                | •034037           | 032884                                  | 012631            | 021851                   |
| 26 | 051669            | 003164                                   | .034693           | 033293                                  | 012532            | 031077                   |
| 27 | 065436            | 004464                                   | •038985           | 026088                                  | 013144            | 038067                   |
| 28 | 066743            | 005270                                   | •043493           | -•020231                                | 009428            | 047454                   |
| 29 | 067491            | 006015                                   | •049141           | 019348                                  | 00669R            | 054047                   |
| 30 | 073194            | 010974                                   | •056457           | -•015176                                | 008015            | -•061767                 |
| 31 | 079487            | 013863                                   | .055088           | 011348                                  | 008593            | 070469                   |
| 32 | -•083127          | 016496                                   | •047671           | 012081                                  | 007891            | 078766                   |
| 33 | -•078788          | 013544                                   | •033316           | -•012767                                | 006967            | -•OB2657                 |
| 34 | 078693            | 010155                                   | •023402           | 009457                                  | 001521            | -•083524                 |
| 35 | 074554            | 022203                                   | •012016           | 006144                                  | .001923           | -•084199                 |
| 36 | 071036            | 037192                                   | 001180            | 011081                                  | .003554           | 085128                   |
| 37 | 072149            | 041027                                   | -•000552          | 012529                                  | 002422            | 087247                   |
| 38 | 073508            | 040647                                   | •001116           | 009381                                  | 010574            | 091209                   |
| 39 | 06716R            | 047649                                   | •001563           | 002935                                  | 015210            | 089917                   |
| 40 | 056423            | 048581                                   | •004644           | •001745                                 | 015032            | -•082237                 |
| 41 | 051345            | 040690                                   | •006660           | •006576                                 | 006/92            | -•065865                 |
| 42 | 041077            | 026846                                   | •001568           | .01188B                                 | .007119           | 047664                   |
| 43 | 025740            | 003258                                   | 001712            | .015284                                 | .013981           | 029R64                   |
| 44 | 012034            | .007630                                  | •001050           | .024163                                 | .018606           | 006956                   |
| 45 | •004928           | .017603                                  | .002070           | .031369                                 | ·02520H           | •01700H                  |
| 46 | •018847           | •023291                                  | 001589            | •034062                                 | .031177           | •036983                  |
| 47 | .035239           | .028781                                  | 012718            | •031001                                 | .043495           | ·053830                  |
| 48 | •048683           | .037652                                  | 028947            | .022706                                 | .058523           | .06312H                  |
| 49 | .056962           | .035455                                  | 040524            | .014159                                 | .066857           | ●06527H                  |
| 50 | •063189           | •034249                                  | 052323            | •009121                                 | .066086           | •065256                  |
| 51 | •063241           | •035560                                  | -•059072          | •004186                                 | .061223           | •068435                  |
| 52 | •060460           | .035488                                  | 065318            | •004188                                 | •052983           | •077796                  |
| 53 | .057755           | .042456                                  | 068271            | •007438                                 | .04103/           | •089225                  |
| 54 | 053034            | •049067                                  | 066956            | •008024                                 | .074927           | •102716                  |
| 55 | •053693           | .057210                                  | -•057491          | •008631                                 | .012481           | •114AB1                  |
| 56 | .048741           | .063398                                  | -•046240          | •008619                                 | .003274           | •122045                  |
| 57 | •050227           | .060685                                  | 032864            | •003276                                 | 001009            | •122446                  |
| 58 | .051297           | .056284                                  | -•026822          | •004492                                 | 002/78            | •114442                  |
| 59 | •040924           | •046151                                  | 023407            | •008043                                 | 004/29            | •100F19                  |
| 60 | •031983           | .027335                                  | -•025407          | •008989                                 | 003917            | •080145                  |
| 50 | E031703           | J. J |                   | *************************************** | +U(-)-11          | -00014                   |

RUN NO. 78A 40M 10-25-62 ORO6-0850 EST 61 POINT RUNNING MEAN. NO BLOCK AVERAGING

| м        | U • N              | U+RHO(W)           | V • N                | V+RHO(W)           | W·N                | W•RHO(W)           | 1 + N              | T+RHO(W) | N+RHD(W)           |
|----------|--------------------|--------------------|----------------------|--------------------|--------------------|--------------------|--------------------|----------|--------------------|
|          | 0.29859            | 0.55137            | 0.22995              | 0.42463            | 0.21041            | 0.38855            | 0.54716            | 0.10104  | 0.3/586            |
|          | 10E 00             | 10E-01             | 10E 00               | 10F-01             | 10F 00             | 10E-01             | 10E-01             | 10E-01   | 101-01             |
| 1        | 021977             | 027183             | 009307               | 003418             | •007433            | .001680            | .032544            | •028610  | 008537             |
| ž        |                    | 045387             | 00275R               | .006989            |                    | 003192             | .040041            |          | 010579             |
| 3        | 047653             | 056333             | .013801              | .024774            |                    | 003562             | .03H197            | .033361  | 010300             |
| 4        |                    | 064197             | .029649              | _                  |                    | 006124             | .033577            |          | 008887             |
| 5        | 060083             | 072127             | •040263              | •051644            | 002962             | 005964             | •031381            | •027698  | -•00815ª           |
| 6        | 062356             | 075041             | .039601              | .052317            | 011232             | 011239             | .032079            | ·028354  | 008328             |
| 7        | 06866B             |                    | .032540              | •045394            | 023728             | 020783             | .031298            | •027479  | 008027             |
| 8        |                    | 088341             | •025295              |                    |                    | 023963             | •02H2B6            |          | 007065             |
| 9<br>10  |                    | 089394             | 0013253              |                    |                    | 026434             | .01/317<br>.005363 |          | 004217<br>001108   |
| 10       |                    |                    | 2.003048             | •1000 D Z T Z      |                    |                    | • 0 > 7(1)         | *004941  | 001108             |
| 11       |                    |                    |                      |                    |                    | 032533             |                    |          | .001555            |
| 12       |                    |                    |                      |                    |                    | 037319             |                    |          | .003183            |
| 13<br>14 |                    |                    |                      |                    |                    | 042481<br>046885   |                    |          | •005358<br>•007740 |
| 15       |                    | _                  |                      |                    |                    | 040914             |                    |          | 009030             |
|          |                    |                    |                      |                    |                    |                    |                    |          |                    |
| 16       |                    |                    |                      |                    |                    | 029307             |                    |          | .009646            |
| 17<br>18 |                    |                    |                      |                    |                    | 019468<br>004287   |                    |          | .008173            |
| 19       |                    |                    | 056294               |                    | •005729            |                    | 006953             |          | •004041            |
| 20       |                    |                    | 059865               |                    | .018794            |                    |                    | ·002988  |                    |
|          | 0/1001             |                    | 0                    |                    |                    |                    | 011.50             | 010000   |                    |
| 21<br>22 |                    |                    | -•064681<br>-•068735 |                    | •022631<br>•026357 | .020599<br>.022105 | •015459<br>•020515 |          | 003914             |
| 23       |                    |                    | 067285               |                    | •031850            | .025815            | •019400            | _        | 005084             |
| 24       |                    |                    | 059107               |                    | .036388            | .028195            | .013372            |          | 003542             |
| 25       | 051429             | 035796             | 047484               | 044912             | •030079            | .020816            | •004952            | •003R06  | 001376             |
| 26       | 042107             | 027482             | 039882               | 038293             | .023465            | -012479            | 004737             | 004546   | .001259            |
| 27       | _                  |                    | 042039               |                    | .018566            |                    | 010448             |          | 002844             |
| 28       | 012086             | .001491            | 042959               | 040533             | .013703            | .00009B            | 011799             | 010484   | .003394            |
| 29       | 004342             | _                  | 042449               |                    |                    | 001667             |                    |          | .003169            |
| 30       | .007876            | .021699            | 041716               | -•038942           | •017232            | 000764             | 010994             | 009385   | .002912            |
| 31       | .016739            | .028814            | 042524               | 039746             | .016261            | 003999             | 010052             | 008199   | .002791            |
| 32       | .018869            |                    | 044040               |                    |                    | 010236             |                    |          | .00245A            |
| 33       | .028851            |                    | 042644               |                    |                    | 018872             |                    |          | .002293            |
| 34<br>35 | .035300<br>.028471 |                    |                      |                    |                    | 022720<br>025554   |                    |          | .002157            |
| 33       | 1020411            | .02/04/            | 030393               | ()26/124           | -4003304           |                    |                    |          | •000980            |
| 36       | .012952            | .010898            | 020839               | 017226             | 005515             | 027657             | .009346            | •008365  | 004436             |
| 37       |                    |                    | 010043               |                    |                    |                    | .025873            |          | 006916             |
| 38       |                    | _                  | 004045               |                    |                    |                    | •039548            |          | 010616             |
| 39<br>40 | .002603            | 005207<br>-003235  | .004909              |                    |                    | 051220<br>051016   | •049296<br>•046497 |          | 013140<br>012351   |
|          |                    |                    |                      | -000710            | 1133000            |                    |                    |          | *******            |
| 41       | •010196            | .010428            | .011021              |                    |                    | 043262             | .029627            |          | 007746             |
| 42       | .01/180            | .015397            | .016381              |                    |                    | 034247             | .013752            |          | 00341/             |
| 43       | .032291            | .027639<br>.042534 | .017962<br>.016886   |                    |                    | 027935<br>019053   |                    | .000970  | .000019<br>.003408 |
| 45       | 066966             | 058975             | .018041              |                    |                    | 008100             |                    |          | .006094            |
|          |                    |                    |                      |                    |                    |                    |                    |          |                    |
| 46       | .075255            | .065203            | .023837              |                    | 009039             |                    | 025830             |          | .006654            |
| 47<br>48 | .064071            | .052675<br>.035128 | .031752<br>.045693   |                    | 008580<br>009896   |                    | 020830<br>017469   |          | .005284<br>.004485 |
| 49       | 03>866             | .020902            | .058451              |                    | 006268             |                    | 018044             |          | .004647            |
| 50       | .024792            | .007930            | .066159              | .075236            | .001725            |                    |                    | 015430   | .00435R            |
|          | 010405             | 001494             | .072628              | 070030             | 011727             | .028633            | m.014757           | 014252   | .003879            |
| 51<br>52 | .019405            | .001484<br>013430  | .078409              | .079920<br>.082806 | .011727<br>.015816 |                    | 016257<br>010516   |          | .003879            |
| 53       |                    | 027604             | .077210              | •078412            | .018596            |                    | 002160             |          | .000123            |
| 54       | 021791             | 036907             | .074505              | •071642            | .020592            | .044890            |                    | •001348  |                    |
| 55       | 024580             | 037002             | .072811              | •066969            | .021944            | •049031            | 000415             | 000166   | 000201             |
| 56       | 028796             | 037501             | .073109              | •064548            | .023802            | .052600            | 004358             | 003884   | .000820            |
| 57       |                    | 037042             | .073296              | •063533            | .028101            | .056561            | 006918             | 006262   | .001479            |
| 58       |                    | 038063             | .068230              | •058831            | .032572            |                    |                    | 005655   | .001374            |
| 59       |                    | 059776             | .059825              | •051180            | .028235            |                    |                    | 005376   | .001327            |
| 60       | 039117             | 040150             | .046042              | •039459            | .021063            | •034546            | 010344             | -•009609 | .002643            |

RUN NO. 78A 40M 10-25-62 ORO6-0850 EST 61 POINT RUNNING MEAN. NO BLOCK AVERAGING

| HORMAL   | TELD HOTOCOVAR             | INICL                |                      |                             |   |                      |
|----------|----------------------------|----------------------|----------------------|-----------------------------|---|----------------------|
| М        | U                          | V                    | W                    | Ť                           | N                                       | RHO(W)               |
|          | 0.43802                    | 0 35078              | 0 01750              | 0.1/-00                     |   |                      |
|          | 10E 00                     | 0.25978<br>10E 0n    | 0,21752<br>10E 00    | 0.14709<br>10E-01           | 0.20354<br>10E 00                       | 0.69406<br>10E-02    |
|          |                            |                      | .02 00               | 100-01                      | 101 00                                  | 105-05               |
| 0        | 1.000000                   | 1.000000             | 1.000000             | 1.000000                    | 1.000000                                | 1.000000             |
| 1        | .765117                    | •860029              | ·842775              | .876423                     | .883979                                 | •888528              |
| 2<br>3   | •567883<br>•428485         | •676348<br>•531791   | •645526<br>•483170   | •706265<br>•568426          | .700561                                 | •709591              |
| 4        | •341131                    | •419968              | •349553              | •462972                     | .537017<br>.404631                      | •550233<br>•423072   |
|          |                            |                      |                      |                             | • |                      |
| 5        | •273012                    | •329231              | •253605              | •372584                     | .314778                                 | • 333924             |
| 6        | •196036<br>•127618         | •260232<br>•206414   | •172058<br>•115528   | •291615<br>•222822          | .242541<br>.180859                      | •260737              |
| 8        | •065173                    | .155264              | •069275              | •157180                     | .122953                                 | •196994<br>•136076   |
| 9        | •015298                    | .097288              | •018477              | •103140                     | .068483                                 | •079555              |
| 10       | 015100                     | 012001               |                      |                             |   |                      |
| 10<br>11 | -•015199<br>-•037666       | •043981<br>••007962  | -•037133<br>-•089395 | .069887                     | .027897                                 | •037473              |
| 12       | 075158                     | 058282               | -•130311             | •033713<br><b>-</b> •009485 | 006405<br>043927                        | -•000698<br>-•042398 |
| 13       | 099785                     | 100081               | 159606               | 051691                      | 075803                                  | 079884               |
| 14       | 127066                     | 138745               | 177576               | 094956                      | 100530                                  | 113059               |
| 15       | 158835                     | -:172920             | 101840               | 120/50                      | 120414                                  | 1/1005               |
| 16       | 185029                     | 204351               | -•191869<br>-•207418 | -•128459<br>-•158636        | 120816<br>134375                        | -•141925<br>-•161274 |
| 17       | 198290                     | 217594               | 223061               | 189440                      | 147379                                  | 175804               |
| 18       | 223087                     | 229977               | 238338               | 214218                      | 156217                                  | 183747               |
| 19       | 253082                     | 242010               | 254024               | 241296                      | 165065                                  | -•191450             |
| 20       | 274042                     | 252704               | 266862               | 258385                      | _ 144694                                | - 200050             |
| 21       | 281095                     | 263618               | -•276927             | 270668                      | 184684<br>207467                        | -•208859<br>-•227774 |
| 22       | 282378                     | 275607               | 275193               | 284435                      | 241190                                  | 255461               |
| 23       | 285278                     | 293196               | 262479               | 297299                      | 272368                                  | 280865               |
| 24       | -•262852                   | 306192               | -•243923             | 299181                      | 298324                                  | -•300990             |
| 25       | 224562                     | 303168               | 220151               | 289389                      | 312743                                  | 308961               |
| 26       | 208437                     | 292161               | 199713               | 268517                      | 304355                                  | 296487               |
| 27       | 172279                     | 277937               | 188714               | 248800                      | 284508                                  | 275524               |
| 28<br>29 | 146249<br>116885           | 255803<br>218843     | -•166243<br>-•143561 | -•233856                    | -,260509<br>-,228346                    | 252316               |
| 27       |                            | -4210043             | 143301               | -•216058                    | 220340                                  | -•222471             |
| 30       | 083439                     | 188402               | 116377               | 188608                      | 192822                                  | 187954               |
| 31       | 051866                     | 165947               | -•077159             | 153443                      | 161199                                  | 154172               |
| 32<br>33 | 044462<br>034408           | -•139871<br>-•114229 | 049460               | 129249                      | 133307                                  | 124728               |
| 34       | 008622                     | 087310               | -•033336<br>-•013134 | -•105646<br>-•078277        | 107773<br>081989                        | -•099561<br>-•074461 |
|          |                            |                      |                      | ******                      |   |                      |
| 35       | •004633                    | 059009               | •007536              | 053232                      | 058663                                  | 052010               |
| 36<br>37 | .023459<br>.024458         | -•027261<br>•004856  | 026425               | 036514                      | 037235                                  | -•033506             |
| 38       | •042951                    | •030113              | •035874<br>•054711   | 027583<br>023973            | 016409<br>000596                        | -•015113<br>-•000766 |
| 39       | .061257                    | .061162              | •077892              | 019867                      | .009098                                 | •010014              |
|          |                            |                      | - 25                 | _                           |   |                      |
| 40       | •071578                    | •086606              | •095704              | 010073                      | .017323                                 | •021629              |
| 41<br>42 | •08365 <i>7</i><br>•089224 | •110252<br>•134021   | •103444<br>•083766   | •011187<br>•025842          | .021230                                 | •032657              |
| 43       | .077753                    | .143827              | •068270              | .034388                     | .025386<br>.032174                      | •040004<br>•045408   |
| 44       | .075571                    | •139019              | .065575              | .042632                     | .041430                                 | •051900              |
| 4 =      | 00/011                     | 136145               | 646555               |                             |   |                      |
| 45<br>46 | .084811<br>.083416         | •134145<br>•117041   | •068272<br>•070207   | •051947<br>•052594          | .050802<br>.054003                      | •058568              |
| 47       | 070962                     | .098053              | •066871              | •052416                     | .051008                                 | •059949<br>•056711   |
| 48       | .042985                    | .073559              | •053970              | .056551                     | .048073                                 | •053740              |
| 49       | ·021176                    | .053212              | •032199              | •060343                     | .047454                                 | •052125              |
| 50       | 004557                     | .037074              | •004112              | •053834                     | .043208                                 | .045559              |
| 51       | 006533                     | .022515              | 017991               | •038427                     | .029156                                 | •045558<br>•028511   |
| 52       | 009714                     | .005893              | 030790               | .021752                     | .006124                                 | •004351              |
| 53       | 021462                     | 011971               | -•033093             | •004997                     | 020374                                  | 022601               |
| 54       | 043311                     | 030514               | -•025881             | -•007128                    | 043748                                  | -•046912             |
| 55       | 062658                     | 037426               | 016339               | 014361                      | 063017                                  | 066876               |
| 56       | 044967                     | 041282               | 007749               | 018503                      | 074230                                  | 078341               |
| 57       | 030733                     | 048447               | -•000119             | 017112                      | 078474                                  | -•081264             |
| 58<br>59 | -•003258<br>•008534        | 057432<br>058966     | •002402<br>•002474   | 018880<br>019456            | 080237<br>082441                        | -•080547<br>-•079526 |
|          |                            |                      | TOURTH               | -0.,470                     |   | - 4017720            |
| 60       | 006482                     | 058094               | •014019              | 019865                      | 086109                                  | 081085               |
|          |                            |                      | Яľ                   |                             |   |                      |

RUN NO. 78A 40M 10-25-62 0806-0850 EST 61 POINT RUNNING MEAN. NO BLOCK AVERAGING

| PI BOIN   | T RUNNING MEA               | N. NO BLOCK       | AVERAGING  |          |          |          |
|-----------|-----------------------------|-------------------|------------|----------|----------|----------|
| COSPECTRU | JM                          |                   |            |          |          |          |
| K         | U•V                         | U•W               | U•T        | V • W    | V • T    | ₩∙T      |
|           | 10E-02                      | 10E-01            | 10E-02     | 10E-01   | 10t-02   | 10E-02   |
| 0         | •002469                     | 013327            | 093478     | 008686   | .008271  | •033328  |
| l         | •577489                     | 109015            | -•722705   | 087022   | 069369   | •237051  |
| 2         | 978541                      | 150605            | 869599     | 124146   | 225581   | • 269473 |
| 3         | •525988                     | 169040            | 851255     | 111430   | 242250   | •274275  |
| 4         | 382631                      | 080201            | -•423298   | 031739   | 028023   | •183008  |
| 5         | 350142                      | 001172            | -•163165   | 014985   | .035790  | •114772  |
| 6         | 253903                      | •015278           | -•161503   | 031918   | .003319  | •067576  |
| 7-8       | 263390                      | •011030           | 180251     | 020307   | .030062  | •044750  |
| 9-11      | •047596<br><b>-</b> •058533 | 000381<br>-000524 | 100530     | 013772   | 015722   | •023467  |
| 12-15     |                             | •000324           | 059113     | -•004615 | .000903  | •010510  |
| 16-20     | •002620                     | .004037           | -•039061   | -•00235B | .000295  | •000925  |
| 21-27     | •009769                     | •002519           | 027994     | 001855   | 008191   | 002877   |
| 28-36     | •003980                     | •001755           | -•012795   | -•000763 | 002886   | 000334   |
| 37-47     | •012176                     | .001168           | 003419     | 000404   | 001714   | -•000794 |
| 48-60     | .008340                     | •000466           | 002374     | 000159   | -,000570 | 000517   |
| OHADDATHE | TE CDECTOUR                 |                   |            |          |          |          |
| UUADKATU  | RE SPECTRUM                 |                   |            |          |          |          |
| K         | U•V                         | U•W               | U•T        | V+W      | V • T    | ₩∙T      |
|           | 10E-01                      | 10E=02            | 10E-02     | 10E-02   | 10E-02   | 10E-02   |
| 1         | •045480                     | 927602            | 109054     | 308604   | .086076  | 106084   |
| 2         | .129072                     | 722746            | 197570     | 108273   | .090673  | •040034  |
| 3         | •151160                     | 761511            | 284194     | •180605  | .123403  | •074434  |
| 4         | .041546                     | 802900            | 184004     | •236452  | .084927  | -•053450 |
| 5         | 017267                      | 400051            | -•064125   | •118081  | .051384  | 056009   |
| 6         | 016498                      | 044027            | 025125     | .012475  | .034162  | 015315   |
| 7-8       | 000617                      | .184469           | 026134     | 076379   | .033878  | 010242   |
| 9-11      | 007027                      | •082752           | 000881     | •000503  | .011928  | -•008374 |
| 12-15     | 004881                      | 004261            | 014306     | 028317   | 002278   | -•012585 |
| 16-20     | -•000092                    | 004939            | -•005751   | •013597  | 000159   | -•002908 |
| 21-27     | •000599                     | 000049            | 002152     | 003033   | .001277  | 001098   |
| 28-36     | .000648                     | 009116            | - 004075   | 009094   | 000989   | 003023   |
| 37-47     | 000388                      | •001153           | • • 000682 | 003787   | 000044   | 000918   |
| 48-60     | 000320                      | 000028            | •000802    | •002089  | 000336   | •000092  |
| POWER SPE | CTRUM                       |                   |            |          |          |          |
| ĸ         | υ                           | v                 | W          | τ        | N        | RHD (W)  |
|           | 10E-01                      | 10E-01            | 10E-01     | 10E-02   | 106-01   | 10E-02   |
| 0         | •050208                     | .043409           | •020435    | .034441  | .041301  | •014306  |
| 1         | .448401                     | .366924           | .217285    | -250969  | .320130  | -109904  |
| 2         | •631398                     | .477243           | •323593    | .282283  | .366143  | •127534  |
| 3         | •725701                     | •482017           | •381629    | .265368  | .341259  | •121820  |
| 4         | •446698                     | •251008           | • 248745   | •144491  | .182693  | •066409  |
| 5         | .221985                     | .140897           | •141359    | •075266  | .113315  | ·038876  |
| 6         | .181422                     | •17,413           | •119455    | .064679  | .123400  | •039058  |
| 7-8       | •187714                     | .091796           | .095689    | .058882  | .097912  | •030718  |
| 9-11      | •110812                     | •062039           | •059796    | •035906  | .048246  | •016447  |
| 12-15     | •072542                     | •046633           | •045421    | •020154  | .036759  | •011897  |
| 16-20     | ·058217                     | .027386           | •072435    | •013068  | .021422  | .007089  |
| 21-27     | .044334                     | .014812           | .013526    | .008724  | .010037  | •003388  |
| 28-36     | •028232                     | •010334           | •008390    | •004924  | .004916  | •001613  |
| 37-47     | •020513                     | •005528           | •006163    | •002478  | .003254  | •000996  |
| 48-60     | •018860                     | •003728           | •003831    | •001736  | .001550  | •000494  |

RUN NO. 78A 40M 10-25-62 OR06-0850 EST 61 POINT RUNNING MEAN. NO BLOCK AVERAGING

#### COSPECTRUM

| K     | U∙N    | U+RHO(W) | V+N     | V • RHO (W) | W+N     | W+RHO(W) | T+N     | T+RHO(W) | N+RHO(W) |
|-------|--------|----------|---------|-------------|---------|----------|---------|----------|----------|
|       | 10E-01 | 10E-02   | 10E-01  | 10E=02      | 10F-01  | 10E-02   | 10E-02  | 10E-02   | 10E-02   |
| 0     | 017711 | 045472   | 000826  | •000175     | .009390 | .021225  | .041634 | .012957  | .074148  |
| 1     | 134439 | 347268   | 019745  | 044649      | .097513 | .200565  | .314610 | •096067  | .573480  |
| 2     | 160016 | 415421   | 090936  | 187245      | .145914 | .284509  | .396192 | •114822  | .664139  |
| 3     | 145565 | 389337   | 122500  | 240507      | .152924 | .296837  | .421359 | •115862  | .626026  |
| 4     | 04/781 | 154040   | 043661  | 075089      | .083234 | •167838  | .245378 | •065652  | .338598  |
| 5     | 008336 | 043008   | 012052  | -•013162    | .047347 | .097314  | .118850 | •032697  | .204349  |
| 6     | 026948 | 072509   | 006042  | 009300      | .028241 | .057922  | .080600 | .024634  | .214498  |
| 7-8   | 018343 | 061700   | .007015 | •016657     | .018970 | .038704  | .058017 | .019956  | .168262  |
| 9-11  | 013004 | 039192   | 008433  | 016421      | .020233 | .036854  | .046106 | .013925  | .086246  |
| 12-15 | 013293 | 032166   | .001622 | •002720     | .015309 | .026583  | .028668 | •008279  | .064459  |
| 16-20 | 001095 | 008084   | .002806 | •004507     | .004996 | .00R276  | .018731 | •005369  | .037931  |
| 21-27 | 002030 | 008342   | 001612  | 004148      | .001438 | .001829  | .008645 | •002957  | .017717  |
| 28-36 | 000226 | 002691   | 000325  | 001062      | .000886 | .001341  | .002888 | .001360  | .008449  |
| 37-47 | 000250 | 000981   | .000144 | 000075      | .000351 | .000421  | .001009 | .000606  | .005450  |
| 48-60 |        | 000080   |         |             | .000238 | .000296  | .000671 | .000422  | .002589  |

#### QUADRATURE SPECTRUM

|        | -        |          |         |             |         |          |         |          |           |
|--------|----------|----------|---------|-------------|---------|----------|---------|----------|-----------|
| K      | U•N      | U+RHO(W) | V•N     | V • RHO (W) | W+N     | W+RHO(W) | T+N     | T+RHO(W) | N+R-10(W) |
|        | 10E-02   | 10E-02   | 10E-02  | 10F-03      | 10E=02  | 10E-03   | 10E-03  | 10E-03   | 10E-03    |
| 1      | 914886   | 167776   | 692042  | 961900      | 139680  | 411081   | 005002  | 001785   | .004407   |
| 1<br>2 | 899398   | 181248   | 287467  | 299015      | 171732  | 199450   | 044331  | 008257   | .010878   |
| 3      | 578982   | 145730   | .222779 | •584990     | 313503  | 369181   | .122195 | •019995  | 020320    |
| 4      | 252883   | 075253   | .305679 | •647902     | 237940  | 479653   | .398933 | •066091  | 071096    |
| 5      | 209873   | 045923   | .217350 | •441495     | .060147 | 000168   | .421899 | •069346  | 075755    |
| 6      | -,245688 | 043888   | .162258 | • 321793    | .186913 | .276992  | .628808 | •101642  | 113394    |
| 7-8    | 094127   | 019582   | .063401 | •165950     | .123478 | .178722  | .458670 | •074141  | 083783    |
| 9-11   | 022974   | 003766   | .009448 | •039297     | 027353  | 061292   | 041850  | 006954   | .005838   |
| 12-15  | 006092   | 003566   | 082590  | 137587      | .032281 | .029713  | .113405 | .018319  | 020512    |
| 16-20  | 035076   | 006721   | 023709  | 038919      | 009834  | 020605   | .102514 | •016593  | 018606    |
| 21-27  | 002335   | 000732   | 022682  | 034473      | .008522 | .011825  | .050365 | .008290  | 008873    |
| 28-36  | 004456   | 001453   | 003237  | 007172      | .007361 | .006448  | .027465 |          | 004386    |
| 37-47  | .003569  | .000502  | 002942  | 004707      | .003530 | .004374  | .012053 |          | 002405    |
| 48-60  | 003119   | 000394   | .000576 | 000165      | .003185 | .005346  | .004603 | .000679  | 000988    |

RUN NO. 76A 40M 10-25-62 0806-0850 EST 301 POINT RUNNING MEAN. 10 POINT BLOCK AVERAGE

# NORMALIZED COSPECTRUM COVARIANCE

| M                  | U•V                 | U+W                  | U+T                  | V•W                | V • T              | WoT                 |
|--------------------|---------------------|----------------------|----------------------|--------------------|--------------------|---------------------|
|                    | 0                   | 0 215-7              | 0 11/70              | 0.35703            |                    | 0.76273             |
|                    | 0.40391<br>10E 00   | 0.31557<br>10E 00    | 0.11672<br>10F 00    | 0.25702<br>10E 00  | 0.95065<br>10E-01  | 0.74273<br>10E-01   |
|                    | 105 00              | 105 00               | •01 00               | 102 00             | 102-02             |                     |
| 0                  | .056329             | 407048               | 738837               | 277201             | 028518             | •326683             |
| i                  | .068661             | 310929               | 541767               | 185316             | 001801             | •187209             |
| 2                  | 015460              | 149290               | -•343641             | 094991             | .033699            | •121410             |
| 3                  | 039349              | 108553               | 250519               | 004461             | .020103            | •077631             |
| 4                  | .031004             | 077100               | 197612               | 024481             | 066479             | .030222             |
| 5                  | .074634             | .002141              | 090934               | .013077            | OH5311             | 005141              |
| 6                  | 025530              | •061577              | .024743              | .058651            | 080275             | 028243              |
| 7                  | .029762             | .055839              | .084006              | .102499            | 073119             | 053412              |
| 8                  | .081368             | .095725              | •138326              | .123424            | 081363             | 109496              |
| 9                  | .052959             | •154403              | •182478              | •071092            | 073540             | 094628              |
| 10                 | 025704              | .179386              | •191490              | •079997            | 026239             | 084580              |
| 11                 | 019135              | .129106              | -184565              | .037696            | 060068             | 013448              |
| 12                 | 043569              | .153030              | .150577              | .037077            | 028820             | 021540              |
| 13                 | 069969              | .176849              | •157439              | 013149             | .024840            | 033716              |
| 14                 | 085650              | .132795              | •224400              | 036651             | .104527            | -•070631            |
| 16                 | - 024422            | •049065              | - 200772             | 047731             | .087511            | -•033316            |
| 15<br>16           | -•026622<br>•025512 | 023487               | •209772<br>•080811   | 007659             | .053432            | 022164              |
| 17                 | •053697             | 010710               | •060323              | .024544            | .0/1108            | 047698              |
| 18                 | .049346             | .025710              | •141497              | 047690             | .080464            | 098140              |
| 19                 | 061502              | 042908               | •136286              | 025124             | .147868            | 042031              |
|                    |                     |                      |                      |                    |                    |                     |
| 20                 | 076523              | 036130               | •046104              | •042734            | .167224            | 046053              |
| 21                 | 034264              | •002901<br>••012437  | •043328              | •078222            | .113875<br>.106392 | -•066060<br>•012427 |
| 22<br>23           | 061342<br>068752    | 055450               | •027901<br>•007863   | •072054<br>•022439 | .056509            | •039949             |
| 24                 | 037129              | 092963               | •010727              | 062774             | 032250             | •123395             |
|                    |                     |                      |                      |                    |                    |                     |
| 25                 | •040578             | 102184               | 026881               | 053329             | 115830             | •081454             |
| 26                 | .003946             | 094951               | 022361               | .025758            | 119719             | .071980             |
| 27                 | 036044              | 090883               | •005514              | •035222            | 096391<br>117239   | •089619<br>•109610  |
| 28                 | 009076<br>001625    | 071039<br>080226     | •020657<br>••021429  | 037338<br>-040110  | 048646             | •090191             |
| 29                 | -•001625            |                      |                      | *040110            |                    | ,,.                 |
| 30                 | 020038              | 037500               | •005499              | •124148            | .037929            | •031414             |
|                    |                     |                      |                      |                    |                    |                     |
| COSPECTRU          | JM.                 |                      |                      |                    |                    |                     |
| COST ECTAL         |                     |                      |                      |                    |                    |                     |
| K                  | U•V                 | U+W                  | U•T                  | V • W              | V • T              | ₩÷T                 |
|                    |                     |                      |                      |                    |                    |                     |
|                    | 10E-01              | 10E-01               | 10E+01               | 10E-01             | 10t-02             | 10E-02              |
|                    | .02 0.              |                      |                      |                    | • • • •            |                     |
| 0                  | •016398             | 006434               | -•021071             | 004823             | 044095             | •024561             |
| 1                  | •100493             | 143443               | -•172083             | 052107             | 385063             | • 292702            |
| 2                  | •057546             | 251390               | 179119               | 075079             | 163692             | +376981             |
| 3                  | •004759             | 285077               | 153567               | 117837             | .253273            | • 353545            |
| 4                  | 035574              | 160969               | 091641               | 131456             | .254892            | ·294#55             |
|                    |                     |                      |                      |                    |                    |                     |
| 5                  | 058907              | 060336               | 054096               | 079567             | .07777H            | •247315             |
| 6                  | •000199             | 045692               | 032729               | 026131             | .045493            | •095271             |
| 7                  | •077723             | 071628               | 022499               | 021675             | 035528<br>-013695  | •041444<br>•043248  |
| 8<br>9 <b>-</b> 11 | •043274<br>•027143  | -•053405<br>-•036095 | -•016486<br>-•023234 | 01924R<br>027823   | 0/7111             | •091354             |
| 4-11               | •041143             | 030073               |                      | -4051053           | -40.1111           | -0,15,54            |
| 12-14              | .041327             | 020515               | 017244               | 033322             | 059476             | •020160             |
| 15-21              | 011446              | 026358               | 011413               | 003194             | 013489             | •054903             |
| 22-30              | 012394              | •001907              | -•006089             | 007793             | .001230            | •046345             |
|                    |                     |                      |                      |                    |                    |                     |

RUN NO. 78A 40M 10-25-62 0806-0850 FST 301 POINT RUNNING MEAN. 10 POINT BLOCK AVERAGE

# NORMALIZED CUSPECTRUM COVARIANCE

| М         | U•N                | U.RHO(W)           | V • N              | V+RHO(W)          | W·N              | W+RHO(W)          | T + N      | T+RHO(W)             | N+RHO(W)           |
|-----------|--------------------|--------------------|--------------------|-------------------|------------------|-------------------|------------|----------------------|--------------------|
|           | 0.3/491            | 0.70267            | 0.30536            | 0.57230           | 0.23857          | 0.44713           | 0.8H240    | 0.1653H              | 0.53122            |
|           | 10E 00             | 10E-01             | 10E 00             | 10E-01            | 10F 00           | 10E-01            | 10F-01     | 10E-01               | 105-01             |
| 0         |                    | 536047             |                    |                   | •428550          | •467490           | .328736    | •582627              | .959063            |
| 1         |                    | 398532             |                    |                   | .270572          | .289480           | .199065    | •383077              | .641338            |
| 2         |                    | 251625             |                    |                   | .178794          | ·148082           | •106643    | •220001              | •353310            |
| 3         |                    | 178713             |                    |                   | .068463          | .082764           | .079743    | •148614              | •170893            |
| 4         | 140753             | 180567             | 052552             | -•065129          | •040954          | •044703           | •077732    | •110500              | •05>261            |
| 5         |                    | 097742             |                    |                   | 004536           |                   | .056139    |                      | 080673             |
| 6         |                    | 023833             | -089004            |                   | 061164           |                   |            | 004789               |                    |
| 7         | 000974             | .023992<br>.054494 | •147152            |                   | 129299           |                   |            | 022989               |                    |
| 8         | .015103<br>.025555 | .076897            | •105591<br>•056223 |                   | 182001<br>132631 |                   |            | -•037477<br>-•008632 |                    |
| 10        | .042086            | .093304            | .051850            | •036479           | 147725           | 153416            | .086916    | •010563              | 246291             |
| ii        | .097647            | .139638            |                    |                   | 130970           |                   | .064760    |                      | 238764             |
| 12        | .087128            |                    | 040983             |                   |                  |                   | .038791    |                      | 168902             |
| 13        | .10/898            |                    |                    |                   |                  | 035379            |            |                      |                    |
| 14        | .158119            |                    | 067504             |                   |                  | 021474            |            |                      |                    |
| 15        | .165115            | .205008            | 084833             | 046867            | .048711          | .031209           | 158471     | -•172330             | 037408             |
| 16        | .130540            | .137046            | 114071             | 081998            | .083286          | •064390           | 161449     | 155021               | .027248            |
| 17        | •155522            |                    | 110614             |                   | •063755          | .039733           | 207816     | -•188249             | .014389            |
| 18        | .205209            |                    | 067556             |                   | .033962          | 000645            |            |                      |                    |
| 19        | •136772            | •159167            | 014313             | •032167           | •035740          | •016999           | 231477     | 237261               | .061345            |
| 20        | .032319            | · C - 2455         | .028739            | •075270           | .044705          | .023856           | 195817     | 201698               | .099649            |
| 21        | .009100            | .021628            | .057537            | .083402           |                  | 029481            |            |                      | .043862            |
| 22        | .045631            | .048009            | .147564            | .159264           | 036560           | 027650            | 120314     | 143415               | 061088             |
| 23        | .016557            | .016645            | -180655            | •172770           | 047766           | 028799            | 049688     | 081742               | 096875             |
| 24        | 011273             | 006071             | .148074            | •117870           | 018614           | •021892           | .046828    | •024753              | 080390             |
| 25        | 063783             | 062943             | .112614            | •062400           | 050391           | 018100            | .082938    | -057885              | 112192             |
| 26        |                    | 087618             | .127715            |                   | 025734           |                   | .115577    |                      | 070362             |
| 27        | 080522             | 068254             | .055616            | •018517           | .005236          | .032259           | .132996    | •111517              | .004905            |
| 28        | 106485             | 085828             | 063101             | 069450            | .069179          | .093320           | .171464    | •146839              | .137226            |
| 29        | 110129             | 102086             | 116231             | 113943            | .063778          | .082923           | .145351    | •122325              | .155345            |
| 30        | 048877             | 041225             | 066514             | -•045708          | .045783          | .049728           | •050767    | •021673              | .073911            |
|           | -1144              |                    |                    |                   |                  |                   |            |                      |                    |
| COSPECT   | RUM                |                    |                    |                   |                  |                   |            |                      |                    |
| K         | U•N                | U+RHO(W)           | V • N              | V+RHO(W)          | W÷N              | W+RHO(W)          | T • N      | (W) CHR+T            | N+RHO(W)           |
|           | 105.01             | 105.03             | 105-01             | 105.00            | 105.01           | 105-02            | 25-02      | 105-00               | 105-00             |
|           | 10E-01             | 10E-02             | 10F-01             | 10E-02            | 10E-01           | 10E-02            | .0E-02     | 10E-02               | 10E-02             |
| 0         |                    | 103447             |                    |                   | .007386          | .016265           | .121475    | •030665              | .066057            |
| 1         | 370164             | 908441             | 022745             | 1065BO            | .073705          | •172913           | .903883    | • 225622             | .544515            |
| 2         | 348487             | 886076             | •000596            | 028574            | .123885          | •269492           | •573838    | •170790              | .695482            |
| 3         | 1R8963             | 581365             | 088095             | -•096175          | .200310          | .387592           | 012672     | •077411              | .876565            |
|           |                    |                    |                    |                   |                  |                   |            |                      |                    |
| 4         | 059476             | 260871             | 164834             | 219976            | .174150          | .334157           | .000986    | •070412              | .696627            |
| _         |                    | 22227              | 041955             |                   |                  |                   | 330515     | 10000                | 40000              |
| 5         |                    | 223274             |                    |                   | .067738          | .154139           |            | •100057              | •400277            |
| 6         |                    | 162125             | •003700            |                   | .021802          | •052246<br>058440 | • 249703   | •064374              | •314353            |
| 7         |                    | 091440             | 014114             | 016575            | .031794          | .058640<br>047808 | .120607    | •033190              | .266789<br>.217149 |
| 8<br>0-11 |                    | 095881             | .032060<br>-000271 | .054431<br>013835 |                  | .067805           | .046131    | +016975<br>+029518   |                    |
| 9-11      |                    |                    |                    |                   | .034577          | •072230           | ********** | *054270              | .136347            |
| 12-14     |                    | 102743             |                    |                   | .039210          | •066603           | .091492    | •023527              | .114494            |
| 15-21     |                    | 044856             |                    |                   | .016692          | ·036841           | .058225    | •016121              | .079107            |
| 22-30     | 006498             | 021244             | 004744             | 007684            | .009705          | •024221           | .037734    | •010437              | •049302            |

RUN NO. 78A 40M 10-25-62 0806-0850 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

| М  | U+N     | U+RHO(W) | V•N     | V . RHO (W)              | W • N   | W+RHO(W) | T + N          | T+RHO(W) | N+RHO(W) |
|----|---------|----------|---------|--------------------------|---------|----------|----------------|----------|----------|
|    | 0.3/491 | 0.70267  | 0.30536 | 0.57230                  | 0.23857 | 0.44713  | 0.88240        | 0.16538  | 0.53122  |
|    | 10E 00  | 10E-01   | 10E 00  | 10E-01                   | 10E 00  | 10E-01   | 10E-01         | 10E-01   | 10E-01   |
| i  | 08V126  | 090048   | 068191  | 035174                   | 006784  | 014360   | 008747         | 007283   | .002845  |
| 2  | 064470  | 065400   | 175709  | 125373                   | .020687 | .013426  | 041907         | 036230   | .012621  |
| 3  | 029740  | 035395   | 198347  | 137674                   | .009985 | 002229   | 061788         | 052803   | .018561  |
| 4  |         |          |         |                          | 007732  |          | <b></b> 053392 |          | .015674  |
| 5  | .006196 | 012119   | 119401  | -•064266                 | •003908 | .031479  | 066298         | -•05691B | .020032  |
| 6  | .007406 | 003208   | 112941  | -•075178                 | .031091 | .063270  | 073308         | 062801   | .022506  |
| 7  | .008445 |          | 109502  |                          |         | .005037  |                |          | .01/198  |
| 8  | .009009 |          | 119285  |                          |         |          | 006403         |          | .002644  |
| 9  | .000295 |          | 068596  |                          | .004494 | •016996  | .027091        |          | 007474   |
| 10 | 057757  | 028238   | .010689 | -•028R97                 | .004731 | •004376  | .049807        | •042465  | 014452   |
| 11 | 064937  | 044424   | .071102 | •014299                  | .015290 | .008136  | .080469        | •069013  | 024041   |
| 12 | 007118  | .003144  | .114970 | .063010                  | .026680 | .014608  | .093466        |          | 02/688   |
| 13 | .006871 | .020283  | .194292 | •143936                  | 021479  | 032856   | •096843        | .083229  | 02862B   |
| 14 | ·015288 | .013389  | •191547 |                          | 006828  | 014647   | .064807        |          | 019487   |
| 15 | .044803 | •027901  | .161869 | •113837                  | .005285 | •026505  | 008915         | -•007781 | .002451  |
| 16 | .048255 | .020681  | .122507 | •085383                  | .003438 |          | 027096         |          | .008330  |
| 17 | .018951 | 014248   | •129481 | •109897                  | .010488 | .046496  | 025639         | 021684   | .007913  |
| 18 | .067325 | .036545  | •045143 | <ul><li>030078</li></ul> | .042228 |          | 085585         |          | .025465  |
| 19 | .121854 | •102975  |         |                          | .012087 |          | 156732         |          | .046210  |
| 20 | •120167 | •111894  | 077799  | -•071484                 | .000863 | •017967  | 150350         | -•129299 | .043815  |
| 21 | .110365 | .106071  | 066269  | 029803                   | 012138  |          | 130651         |          | .038062  |
| 22 | .151220 |          | 069468  | -•017356                 | .011364 |          | 145969         |          | .043261  |
| 23 | •134957 |          |         |                          |         |          | 128474         |          | .037448  |
| 24 | .061731 |          | 015253  |                          |         |          | 094605         |          | .028005  |
| 25 | 045127  | 048817   | •043324 | •107001                  | .013199 | 016211   | 056627         | -•048056 | .017052  |
| 26 |         | 079470   | .067571 | -118833                  | .051624 | .019333  | 035937         |          | .010917  |
| 27 |         | 078594   | .080760 | •118077                  | .093722 | .043821  | .018716        |          | 005219   |
| 28 |         | 094477   | .070163 | ·105884                  | .065708 | .013344  | .060653        |          | 017274   |
| 29 |         | 141279   | .042070 | •080334                  |         | 011549   | .139587        |          | 040946   |
| 30 | 212130  | 184986   | .035811 | •053757                  | •006729 | 050919   | .207441        | •178825  | 061369   |

#### QUADRATURE SPECTRUM

```
        K
        U+N
        U+RHO(W)
        V+N
        V+RHO(W)
        W+N
        W+RHO(W)
        T+N
        T+RHO(W)
        N+RHO(W)

        10F-02
        10E-02
        10E-01
        10E-02
        10E-03
        10E-03
        10E-02
        10E-03
        10E-03

        1
        -352608
        -055883
        -006924
        -029593
        -986887
        -615490
        -087438
        -140567
        -166023

        2
        -646888
        -099545
        -120766
        -196398
        -149217
        -129568
        -040891
        -066530
        -061549

        3
        -310599
        -065167
        -258287
        -329839
        -080824
        -061528
        -245182
        -394337
        -445528

        4
        -19362
        -025905
        -179331
        -201417
        -523788
        -357955
        -353548
        --568730
        -632999

        5
        -367534
        -112744
        -013381
        -031784
        -556894
        -051839
        -047387
        -075942
        -082865
```

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6 -.491477 -.083125 -.013493 .000291 .236454 -.343271 .076165 .121487 -.142792
7 -.649693 -.097593 -.057545 -.106247 .918924 -.089314 .048596 .077940 -.090537
8 -.573228 -.099275 -.054055 -.095764 .189080 -.042493 .016528 .027015 -.026711
9-11 -.115227 -.017557 -.018943 -.025674 -.422231 -.160288 -.004391 -.006587 .011496
12-14 -.280106 -.058295 .018338 .031831 .924249 .279830 -.014265 -.023438 .026848

15-21 -.127810 -.030790 .008020 .018557 -.876985 -.183801 .022559 .036629 -.040916
22-30 .016314 -.001867 .008878 .017827 -.209334 -.046077 -.001097 -.000729 .003446
```

RUN NO. 7HA 40M 10-25-62 0806-0850 EST 301 POINT RUNNING MEAN. 10 POINT BLOCK AVERAGE

| м          | U•V                | U•W                  | U•T                  | V•W                  | V • I              | WoT                  |
|------------|--------------------|----------------------|----------------------|----------------------|--------------------|----------------------|
|            | 0.40391            | 0.31557              | 0.11672              | 0.25702              | 0.45065            | 0.74273              |
|            | 10E 00             | 10E 00               | 10E 00               | 100 00               | 10E-01             | 10E-01               |
| 1          | .076918            | 129649               | -•067964             | •001587              | •079911            | 031352               |
| ż          | ·052378            | 068364               | 032359               | 036355               | .087951            | 014678               |
| 3          | •004550            | 083582               | -•031269             | -•039793             | •110H81            | -•038036             |
| 4          | •031318            | 073848<br>-007575    | -•054406<br>-•057978 | 00'1876              | .120061            | 003322               |
| 5          | •110297            | •001313              | 11777711             | .021813              | .129335            | •092201              |
| 6          | •094242            | •043286              | 031533               | .056140              | .0/3451            | •121968              |
| 7<br>8     | •065594<br>•002986 | 709042<br>-038380    | •00B310<br>•041604   | •073115<br>•034289   | .027999<br>031860  | •048836<br>•015304   |
| 9          | 079313             | .025081              | •056837              | 009432               | 083187             | •043256              |
| 10         | 111392             | .014617              | .070453              | 014445               | 179469             | .001837              |
| 11         | 099727             | 042556               | •03R172              | •023682              | 157301             | 018029               |
| 12         | 061851             | .023883              | •032847              | •054391              | 117273             | 028755               |
| 13         | 037539             | .063909              | •046043              | •102383              | 0/7521             | 047867               |
| 14         | 043219             | 005010               | -•001413             | -102416              | 059725             | -•028492             |
| 15         | -•060757           | •061595              | -•035584             | •033065              | 087210             | •074963              |
| 16         | 031001             | •109115              | -•068735             | 005080               | 066183             | •133325              |
| 17         | 006462             | .085080              | -•100951             | •012508              | 004/86             | •12307H              |
| 18<br>19   | 035895<br>065787   | •127543<br>•112301   | -•070363<br>-•006452 | -•028147<br>-•118552 | 029380<br>042282   | •145098<br>•115284   |
| 20         | 010940             | •018424              | •027404              | 107008               | 015808             | •059H21              |
|            |                    |                      |                      |                      |                    |                      |
| 21         | .076070            | •041387              | •034145              | 067878               | •091176<br>•140213 | *00880H              |
| 22<br>23   | •093188<br>•096122 | •087898<br>•030457   | •013184<br>•017973   | -•077857<br>-•065707 | .147213            | •026171<br>••041660  |
| 24         | .136785            | 049208               | •006249              | .026453              | . 222156           | 082516               |
| 25         | .182658            | 113325               | -•031461             | •037043              | .234602            | 091R26               |
| 26         | .160064            | 097017               | 027256               | .085590              | .203438            | 084580               |
| 27         | •127479            | 099526               | •007546              | •131711              | .162/96            | 122473               |
| 28         | -127072            | 117509               | •005025              | •098798              | .151952            | 145958               |
| 29<br>30   | •172640<br>•145783 | 152631<br>227686     | •002485<br>••007010  | +055575<br>•039083   | •146997<br>•077220 | -•183610<br>-•189657 |
| • •        |                    |                      |                      |                      |                    |                      |
| OLIADDATUL | e coectour         |                      |                      |                      |                    |                      |
| QUADRATUR  | RE SPECTRUM        |                      |                      |                      |                    |                      |
| K          | U•V                | U•W                  | U+T                  | V • W                | V • I              | W + T                |
|            |                    |                      |                      |                      |                    |                      |
|            | 10E-01             | 10E-02               | 10F-02               | 10E-02               | 10t-02             | 10E-02               |
| 1          | 055704             | •729271              | 003274               | •463783              | 225017             | •251208              |
| 2          | .006460            | 306556               | +030896              | •422128              | 007166             | .056194              |
| 3          | •136686            | 687930               | 078981               | 110994               | .483387            | •025012              |
| 4          | •120269            | 247980<br>533653     | 314293<br>293923     | 362297               | .488304            | •149829              |
| 5          | .061143            | 733033               | - 6 2 4 3 4 2 3      | •107107              | .297179            | -•022692             |
|            |                    |                      |                      |                      |                    |                      |
|            |                    |                      |                      |                      |                    |                      |
|            |                    |                      |                      |                      |                    |                      |
|            |                    |                      |                      |                      |                    |                      |
| 4          | 000134             | 0.025404             | 072244               | 105133               | 122220             | 212163               |
| 6<br>7     | 000124<br>070846   | -•825406<br>-•659549 | -+022266<br>+041862  | -•105137<br>-•518663 | .123329<br>073234  | -•212187<br>-•133577 |
| A          | 051166             | 409278               | 033312               | 414076               | 046217             | 042471               |
| 9-11       | .034634            | 203664               | •008114              | •119578              | •030303            | 052104               |
| 12-14      | •040830            | 129793               | -•073243             | •037301              | .011698            | •071595              |
| 15-21      | .017034            | 256796               | 054136               | .063399              | .031465            | 024611               |
| 22-30      | .002550            | 148568               | -•023486             | •015937              | .020101            | -•009955             |

RUN NO. 78A 40M 10-25-62 0806-0850 EST 301 POINT RUNNING MEAN. 10 POINT BLOCK AVERAGE

|           | NOTOCOTAIN           | 4 mil 4 6            |   |                      |                    |   |
|-----------|----------------------|----------------------|---|----------------------|--------------------|---|
| M         | U                    | ٧                    | W                                       | T                    | N                  | RHO(W)                                  |
|           | 0.49592              | 0.32897              | 0.20081                                 | 0.07/70              | - 20212            |   |
|           | 10E 00               | 10E 00               | 10F 00                                  | 0.27472<br>10E-01    | 0.28343<br>10E 00  | 0.99562<br>10E-02                       |
| 0         | 1.000000             | 1.000000             | 1.000000                                | 1.000000             | 1.000000           | 1.000000                                |
| 1         | •589083              | •581081              | ·429383                                 | •706294              | .675471            | •667080                                 |
| 2         | •307879              | .259807              | ·149884                                 | +427749              | .372813            | •370435                                 |
| 3         | •256939              | •065632              | •068771                                 | •267365              | .1/0572            | •191743                                 |
| 4         | •212775              | •015841              | •082905                                 | •146304              | •037414            | •080419                                 |
| 5         | •076536              | 114404               | 078833                                  | •013717              | 113205             | 054030                                  |
| 6<br>7    | -•036991<br>-•089612 | -•210514<br>-•200215 | 121687                                  | 124084               | 194211             | 135044                                  |
| 8         | 111204               | 186900               | -•133798<br>-•226979                    | 179726               | 239305             | 174389                                  |
| 9         | 186152               | 134338               | 202799                                  | -•256336<br>-•264748 | 251980<br>763155   | -•186692<br>-•176946                    |
| 10        | 231396               | 097602               | 190836                                  | 215527               | 315884             | 200114                                  |
| 11        | 275887               | 073203               | 158436                                  | 142105               | 249534             | -•209114<br>-•201639                    |
| 12        | 330265               | •045554              | 200347                                  | 072832               | 209180             | 142164                                  |
| 13        | 309979               | • 055449             | 107100                                  | 053142               | 135527             | 117548                                  |
| 14        | 318840               | •013011              | 168988                                  | 123644               | 093477             | 149211                                  |
| 15        | 268240               | 007974               | 111890                                  | 120588               | .011678            | 083756                                  |
| 16        | 083730               | 003519               | •015705                                 | 052363               | .088151            | 023319                                  |
| 17        | 059197               | •020647              | ·028552                                 | 029237               | .089657            | 044651                                  |
| 18<br>19  | -•125615<br>-•073284 | 020924               | 002893                                  | 096547               | .066618            | -•091996                                |
|           |                      | •008052              | •062751                                 | -•123986             | •152376            | -•018942                                |
| 20        | .005394              | 033188               | •060616                                 | 106561               | .184955            | •024215                                 |
| 21        | •024593              | •008531              | 112690                                  | 123850               | .102611            | 012261                                  |
| 22<br>23  | •075236              | 001320               | -•042153                                | - • 129931           | 029524             | 095500                                  |
| 24        | •076221<br>•111395   | •013546              | 019757                                  | 127514               | 095902             | 107622                                  |
|           |                      | 075565               | •059001                                 | -•053093             | 109935             | <b>~•</b> 061800                        |
| 25        | •185184              | 127880               | •019366                                 | 044865               | 159601             | 078947                                  |
| 26        | •138548              | 197867               | • 089555                                | 031776               | 122474             | 03300R                                  |
| 27<br>28  | •028835<br>•-040140  | 223804               | •084500                                 | 012230               | 041600             | •038594                                 |
| 29        | 040140<br>.023145    | -•217019<br>-•166363 | •122062                                 | 005101               | .099515            | •162527                                 |
|           |                      | [0050)               | •135768                                 | 011267               | ·129H12            | •170594                                 |
| 30        | •030715              | 119178               | •146674                                 | 077296               | .068027            | •070582                                 |
| POWER SPE | CTRUM                |                      |   |                      |                    |   |
| K         | U                    | V                    | L4                                      | _                    |                    |   |
| *         | C                    | v                    | W                                       | T                    | N                  | KHO(M)                                  |
|           | 10E-01               | 10E-01               | 10E-01                                  | 10E-02               | 105.01             | 105.00                                  |
|           |                      |                      |   | 102-02               | 10t-01             | 10E-02                                  |
| 0         | •068807              | •064399              | •000368                                 | •061635              | .027461            | •016154                                 |
| 1<br>2    | •721716<br>•909923   | •305479<br>•280390   | ·121884                                 | •441754              | .236320            | •128603                                 |
| 3         | ·810350              | •391507              | •212347                                 | •433687              | .36650R            | •143120                                 |
| ,         | 11120350             | • 771201             | •761181                                 | •441879              | •544731            | +155395                                 |
|           |                      |                      |   |                      |                    |   |
|           |                      |                      |   |                      |                    |   |
|           |                      |                      |   |                      |                    |   |
| 4         | •368141              | .430130              | •197311                                 | a 389083             | .431622            | •125120                                 |
| 5         | •190050              | •358600              | •114552                                 |                      |                    |   |
| 6         | 198379               | • 246558             | • 114572<br>• 094655                    | •258797<br>•133384   | •211257            | • 082665                                |
| 7         | .228152              | •146538              | •094692                                 | •133304<br>•075868   | •167702<br>•151941 | •062262                                 |
| 8         | .166913              | .124/40              | •063295                                 | .052404              | 129155             | <ul><li>049023</li><li>038185</li></ul> |
| 9-11      | •120398              | •114895              | ·075880                                 | .085318              | .074699            | •027339                                 |
| 12-14     | .152492              | 102020               |   |                      |                    |   |
| 15-21     | •152682<br>•114812   | •103828<br>•059174   | •069584                                 | •048959              | .061002            | •022637                                 |
| 22-30     | •069737              | •048233              | •062014<br>•046567                      | •037254<br>•024209   | .042630            | •01564P                                 |
|           |                      |                      | * · · · · · · · · · · · · · · · · · · · | #UZ47U <b>Y</b>      | •076404            | •009R21                                 |
|           |                      |                      |   |                      |                    |   |

RUN NO. 78A 16M 10-25-62 0806-0850 EST RUN NO. 78A 40M 10-25-62 0806-0850 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

#### COHERENCE WITH GUADRATURE

| K      | U       | V       | W       | r       | Ν       | RHO(W)   |
|--------|---------|---------|---------|---------|---------|----------|
|        | 10E 00   |
| 0      | .425182 | .284141 | •616653 | •658962 | .630620 | •626728  |
| 1      | .317381 | .554304 | ·595628 | .445329 | .41349H | •366424  |
| 2      | .142953 | .433565 | •565896 | •371640 | .358503 | • 330121 |
| 2<br>3 | .106172 | .345870 | •533728 | .247305 | .387554 | •361315  |
| 4      | .243560 | .270182 | •485926 | •141871 | .348614 | •308419  |
| 5      | -204986 | •189516 | .472888 | •088325 | .214691 | •17483F  |
| 6      | .067113 | .174476 | •489096 | .283501 | .045533 | •054392  |
| 7-8    | .189074 | .195809 | •370537 | .240483 | .1/5536 | •116191  |
| 9-11   | .082489 | •109984 | .268898 | .293729 | .212695 | .252460  |
| 12-15  | •123475 | .076389 | •209463 | •151034 | .043217 | •086168  |
| 16-20  | •146120 | •111401 | •084293 | •121593 | .158779 | •154926  |
| 21-27  | .094470 | .069413 | •131526 | .205089 | .1/2678 | •178632  |
| 28-36  | .083086 | .071352 | .151153 | .251187 | .113415 | .162960  |
| 37-47  | .124446 | .153851 | .124495 | .150503 | 185622  | -154055  |
| 48-60  | .150682 | .103010 | •159040 | 143951  | .186H9H | •150563  |

# 301 POINT RUNNING MEAN. 10 POINT BLOCK AVFRAGE

### COHERENCE WITH QUADRATURE

| K     | U        | V        | W        | 7       | N       | RHO(W)   |
|-------|----------|----------|----------|---------|---------|----------|
|       | 10E 00   | 10E 00   | 10F 01   | 10E 00  | 10E 00  | 10E 00   |
| 0     | .902851  | .982115  | •160494  | .914589 | .9/2/81 | •992787  |
| 1     | ·893437  | .842191  | • 092641 | .843756 | .8295AB | ·850367  |
| 2     | .794589  | .6670R9  | .087249  | .743045 | .814854 | .803293  |
| 3     | •597670  | .562949  | .075543  | .671846 | .834181 | .8026BR  |
| 4     | • 399135 | •612252  | • 066347 | •718386 | ·811649 | •776477  |
| 5     | •540696  | .851273  | •060351  | .787756 | .645643 | •699928  |
| 6     | •580028  | •691053  | .041866  | •763566 | .630319 | •695714  |
| 7     | .455645  | .405877  | .037155  | .539890 | .668329 | .656616  |
| :iR   | • 392117 | .522592  | .046869  | .303362 | .522157 | • 436155 |
| 9-11  | •314845  | •630359  | .066318  | •516296 | .232854 | •236734  |
| 12-14 | .173182  | .352545  | .052140  | .297750 | .653887 | •631618  |
| 15-21 | .411544  | . 366956 | 056535   | .338555 | 374085  | .339508  |
| 22-30 | •383203  | .315317  | .061537  | .301261 | .421461 | •417726  |

# RUN NO. 79 16M 10-29-62 1602-1718 EST

# GROSS STATISTICS

| 1 CI<br>Transitional<br>Land | WIND<br>Sigma<br>Sigma  | A 8.5 DEG                      | WIND DIRE<br>SOLAR RAD<br>NET RADIA |                                    |
|------------------------------|-------------------------|--------------------------------|-------------------------------------|------------------------------------|
|                              | WITH NO<br>RUNNING MEAN | WITH 301 POINT<br>RUNNING MEAN | WITH 61 POINT<br>RUNNING MEAN       | 301 PT RUN MEAN<br>10 PT BLOCK AVG |
| VARIANCES                    |                         |                                |                                     |                                    |
| U                            | 0.96950E 00             | 0.40548E-00                    | 0.21365E-00                         | 0.30427E-00                        |
| V                            | 0.34293E-00             | 0.21531E-00                    | 0.16592E-00                         | 0.12263E-00                        |
| W                            | 0-87493E-01             | 0.81393E-01                    | 0.75716E-01                         | 0.34852E-01                        |
| Т                            | 0.55273E 00             | 0.56942E-02                    | 0.34923E-02                         | 0.39421E-02                        |
| E                            | 0.69996E 00             | 0.35112E-00                    | 0.22765E-00                         |                                    |
| GUSTINESS RATIO              | s<br>-                  |                                |                                     |                                    |
| U                            | 0.26756                 | 0.17304                        | 0.12561                             | 0.14989                            |
| V                            | 0.15913                 | 0.12609                        | 0.11069                             | 0.09516                            |
| W                            | 0.08038                 | 0.07753                        | 0.07477                             | 0.05073                            |
| COVARIANCES                  |                         |                                |                                     |                                    |
| U.V                          | 0.19375E-00             | 0.11689E-01                    | 0.16845E-02                         | 0.14020E-01                        |
| U,W                          | -0.44249E-01            | -0.57544E-01                   | -0.41836E-01                        | -0.41123E-01                       |
| U,T                          | 0.47148E-00             | 0.14628E-01                    | 0.68024E-02                         | 0.13213E-01                        |
| V, W                         | 0.12602E-01             | 0.10103E-01                    | 0.67206E-02                         | 0.60359E-02                        |
| V,T                          | 0.15517E-00             | -0.85446E-03                   | 0.63273E-03                         | -0.16309E-02                       |
| W.T                          | 0.13129E-01             | -0.62250E-02                   | -0.49348E-02                        | -0.36267E-02                       |
| WE                           | -0.84530E-02            | 0.37503E-02                    | 0.30052E-02                         |                                    |
| NORMALIZED COVA              | RIANCES                 |                                |                                     |                                    |
| U,V                          | 0.33603                 | 0.03956                        | 0.00895                             | 0.07258                            |
| U,W                          | -0.15193                | -0.31676                       | -0.32893                            | -0.39935                           |
| U.T                          | 0.64407                 | 0.30443                        | 0.24903                             | 0.38152                            |
| V. W                         | 0.07275                 | 0.07632                        | 0.05996                             | 0.09233                            |
| V, T                         | 0.35641                 | -0.02440                       | 0.02629                             | -0.07418                           |
| W.T                          | 0.05970                 | -0.28915                       | -0.30348                            | -0.30941                           |
| • •                          |                         |                                |                                     |                                    |

RUN NO. 79 16M 10-29-62 1602-1718 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

#### NORMALIZED COSPECTRUM COVARIANCE

| 1101111111 |          | 001441141100 |         |         |          |          |
|------------|----------|--------------|---------|---------|----------|----------|
| M          | U.V      | U.W          | U.T     | V.W     | V.T      | W,T      |
|            | 0.18832  | 0.12721      | 0.27318 | 0.11210 | 0.24073  | 0.16261  |
|            | 10E 00   | 10E 00       | 108-01  | 10E 00  | 10E-01   | 10E-01   |
| ^          | 000037   | - 330100     | .249283 | .059660 | 024510   | - 202512 |
| o,         | •009037  | 329198       |         |         | .026519  | 303512   |
| 1          | •005976  | 298335       | .245240 | .049334 | .022407  | 244076   |
| 2          | .002012  | 248197       | .233047 | .036558 | .019369  | 174510   |
| 3          | .001180  | 201696       | .207873 | .024930 | .019273  | 123206   |
| 4          | .006639  | 157019       | .180798 | .011299 | .015563  | 089534   |
| 5          | .010147  | 111947       | .155837 | .002256 | .002632  | 068033   |
| 6          | .019063  | 073807       | .124945 | 009998  | 020882   | 040134   |
| 7          | .016521  | 042003       | .092326 | 010280  | 034837   | 008084   |
| 8          | .007175  | 004824       | .063969 | .000132 | 038515   | .013968  |
| 9          | .005097  | .019558      | .041485 | .001758 | 039707   | .023858  |
| 10         | 000201   | 027572       | 022107  | 000536  | - 027977 | .026928  |
| 10         | -009201  | .027572      | .022197 |         | 027877   |          |
| 11         | .017001  | .046255      | 004237  | 004322  | 016208   | .031500  |
| 12         | .020221  | .065601      | 034552  | 015932  | 004727   | .045053  |
| 13         | . 020005 | .075013      | 057556  | 016467  | .003941  | .059545  |
| 14         | .010779  | .073254      | 071776  | 001642  | .008476  | .069607  |
| 15         | .004025  | .075090      | 078971  | .008129 | .006044  | .066031  |
| 16         | .003001  | .069925      | 083790  | .008013 | 005405   | .064643  |
| 17         | 003325   | .058389      | 089364  | .004327 | 013816   | .069449  |
| 18         | 005666   | .049071      | 092864  | .007429 | 021446   | .073483  |
| 19         | 005793   | .048249      | 095097  | .007015 | 020904   | .071580  |
| 20         | - 012000 | .047902      | 100061  | .007314 | - 022646 | 041404   |
|            | 012900   |              | 777722  |         | 022646   | .061606  |
| 21         | 016426   | .049192      | 101177  | .009212 | 021244   | .047406  |
| 22         | 005708   | .046190      | 094897  | .002397 | 019831   | .039810  |
| 23         | .011285  | .045293      | 094524  | .004055 | 019856   | .031139  |
| 24         | .017620  | .050088      | 092988  | .009619 | 015744   | .026821  |
| 25         | .007570  | .057016      | 085287  | .012920 | 001637   | .029130  |
| 26         | .000134  | .054613      | 073019  | .003541 | -008048  | .030981  |
| 27         | 004017   | .051688      | 062326  | 003362  | .014585  | .020042  |
| 28         | 007695   | .045950      | 054342  | .000362 | .019787  | .011374  |
| 29         | 010114   | .037547      | 047027  | .012039 | .019147  | .002415  |
| 30         | 008994   | .027879      | 043803  | .021840 | .015899  | 007009   |
| 31         | 013360   | .018255      | 039490  | .022149 | .018320  | 008921   |
|            | 013563   | .018985      | 039986  | .012639 | .017177  | 006070   |
| 32         |          |              |         |         |          |          |
| 33         | 015623   | .026177      | 039446  | 004811  | .012903  | 001553   |
| 34         | 014218   | .030357      | 035327  | 022910  | .011981  | .002539  |
| 35         | 016899   | .035143      | 028446  | 028040  | .013505  | .005811  |
| 36         | 024493   | .042609      | 020647  | 022420  | .017334  | .004481  |
| 37         | 022249   | .053410      | 019299  | 024182  | .024535  | .001120  |
| 38         | 018927   | .058976      | 014291  | 032388  | .025109  | .002494  |
| 39         | 022438   | .051274      | 006754  | 028412  | .015170  | .011133  |
| 40         | 023947   | .044622      | 004693  | 022961  | .005623  | .017980  |
| 40         | 014792   | .038421      | 006917  | 028065  | 006051   | .025223  |
| 41         |          |              |         |         |          |          |
| 42         | 006396   | .030457      | 007931  | 033714  | 009039   | .027151  |
| 43         | 001575   | .023645      | 005739  | 038662  | 008301   | .031627  |
| 44         | .005863  | • 020000     | 008245  | 050446  | 003612   | .036241  |
| 45         | .007932  | .018722      | 017226  | 065326  | 000007   | .044286  |
| 46         | .015747  | .009502      | 021895  | 072878  | 001274   | .049070  |
| 47         | .026900  | .000481      | 022604  | 066560  | 006122   | .048234  |
| 48         | .036728  | .000127      | 022429  | 059042  | 007698   | .046874  |
| 49         | .040425  | .003391      | 017707  | 050503  | 015433   | .045021  |
|            | 63663    | 004015       | 011000  | 04.0004 | - 022517 | 0/0707   |
| 50         | .038816  | .004815      | 011338  | 042294  | 023517   | -040787  |
| 51         | .036448  | .003985      | 006565  | 051795  | 020751   | .030742  |
| 52         | .034445  | 012004       | 002755  | 062304  | 011699   | .018681  |
| 53         | .030183  | 030857       | .000896 | 051719  | .000507  | .000213  |
| 54         | .018775  | 041592       | .006236 | 025406  | .010093  | 016765   |
| 55         | .000231  | 033232       | .010438 | 002503  | .008585  | 028958   |
| 56         | 012696   | 025311       | .015273 | .014047 | .002110  | 040208   |
| 57         | 017524   | 031665       | .021396 | .017631 | .001512  | 040956   |
| 58         | 021393   | 035172       | .025919 | .018047 | .001756  | 042221   |
| 59         | 031341   | 027239       | .028459 | .031412 | .002956  | 045286   |
| 60         | 031651   | 026203       | .031656 | .046945 | .002631  | 051937   |
|            |          |              | 1.1.    |         |          |          |

RUN NO. 79 16M 10-29-62 1602-1718 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| NO.      | 40.0              | 001 AM 1 AM 10 C  |          |                    |          |          |
|----------|-------------------|-------------------|----------|--------------------|----------|----------|
| M        | U,V               | U•W               | U,T      | V.W                | V. T     | WeT      |
|          | 0 10022           | 0 12721           | 0.27318  | 0.11210            | 0.24073  | 0.16261  |
|          | 0.18832<br>10E 00 | 0.12721<br>10E 00 | 10E-01   | 10E 00             | 10E-01   | 10E-01   |
|          | 004130            | - 040134          | 030004   | 000743             | .013374  | 036823   |
| 1        | .004139           | 049136            | .030886  | .000742<br>.005540 | .024989  | 058051   |
| 2        | .013162           | 069700            | .064354  | 7 7 7 8 8 1 1 1    |          | 068250   |
| 3        | .019239           | 064382            | .089473  | .018818            | .031395  |          |
| 4        | .027871           | 048404            | .102929  | .029190            | .028034  | 072411   |
| 5        | .032816           | 034703            | .115111  | . 038463           | .020697  | 072397   |
| 6        | .041675           | 027012            | .120964  | • 044077           | .014489  | 065916   |
| 7        | .047056           | 025155            | .121686  | .041960            | .007041  | 058818   |
| 8        | .049091           | 027488            | .119025  | .037553            | .008484  | 057408   |
| 9        | .050963           | 020351            | .107084  | .035337            | .012750  | 056879   |
| 10       | .051776           | 002380            | .089531  | .036241            | .013449  | 049013   |
| 11       | .045684           | .009022           | .073917  | .036399            | .012769  | 038155   |
| 12       | .038302           | .015771           | .063470  | .020958            | .015152  | 034162   |
| 13       | .027081           | .021615           | .059914  | .017137            | .014535  | 035885   |
| 14       | .015857           | .019956           | .061428  | .015235            | .014477  | 035780   |
| 15       | .002124           | .022309           | .065078  | .007211            | .020879  | 040745   |
| 16       | 012861            | .025085           | .066194  | 000377             | .025369  | 042926   |
| 17       | 024994            | .023677           | .067073  | 008588             | .023466  | 039434   |
| 18       | 027884            | .014944           | .065541  | 016965             | .023278  | 032724   |
| 19       | 029360            | .013023           | .062166  | 014216             | .024635  | 026644   |
| 20       | 031612            | .012556           | .056113  | 004947             | .024254  | 019865   |
| 21       | 024155            | .009111           | .048211  | .001346            | .020227  | 006778   |
| 22       | 018121            | .001397           | .043467  | .002479            | .018756  | .007580  |
| 23       | 009510            | 009290            | .039638  | 006531             | .015881  | .018829  |
| 24       | .000653           | 015760            | .032486  | 015607             | .012033  | .021898  |
| 25       | 001338            | 017997            | .022862  | 018135             | .006487  | .022282  |
|          |                   |                   |          |                    |          |          |
| 26       | 002372            | 021600            | .012625  | 012096             | .005291  | .021563  |
| 27       | .006744           | 020765            | .008370  | 009489             | .005236  | .027067  |
| 28       | .027036           | 015697            | .009365  | 004995             | .001759  | .028396  |
| 29       | .042128           | 004944            | .008958  | 004537             | 006739   | .023954  |
| 30       | .047579           | 003889            | .002414  | 007371             | 012573   | .023393  |
| 31       | .049325           | 010448            | 003340   | 009544             | 019433   | .029716  |
| 32       | .043777           | 010796            | 008747   | 009947             | 022098   | .034425  |
| 33       | .038841           | 007244            | 013492   | 014524             | 023573   | .034092  |
| 34       | .038778           | 006637            | 020862   | 004642             | 023203   | .025428  |
| 1.5      | .037198           | 011054            | 018374   | .014633            | 024862   | .010638  |
| 36       | .042472           | 011771            | 010041   | .018874            | 027278   | .002694  |
| 37       | . 050433          | 007438            | 010447   | . 023845           | 030102   | .003223  |
| 38       | .050830           | 007415            | 010045   | .025755            | 027381   | .033936  |
| 39       | .050532           | 016140            | 004282   | .018426            | 019989   | 001709   |
| 40       | .049375           | 020798            | 003825   | .003550            | 014934   | 004085   |
| 41       | .043762           | 013005            | 016096   | 002227             | 014335   | .004138  |
| 42       | .036631           | 001212            | 034346   | 005387             | 013404   | .008074  |
| 43       | .033571           | .003596           | 044810   | .001235            | 016889   | .909118  |
| 44       | .020063           | 001881            | 045794   | .011558            | 021377   | .008747  |
| 45       | .002548           | .004047           | 043576   | .004600            | 020334   | 000443   |
| 46       | 006381            | .005693           | 034170   | .(01633            | 017999   | 006315   |
| 47       | 008142            | •005289           | 030612   | 003211             | 014208   | 010902   |
| 48       | 011644            | .013198           | 034174   | 009169             | 011653   | 015570   |
| 49       | 010621            | .025523           | 043404   | 013269             | 009790   | 018780   |
| 50       | 007066            | .033705           | 053166   | 006826             | 015015   | 017206   |
| E1       | - 013355          | 034453            | - 054490 | - 000471           | - 015530 | - 014100 |
| 51<br>52 | 013355            | .034452           | 056489   | 000471             | 015529   | 014100   |
| 52<br>53 | 017598            | -034840           | 054259   | .000163            | 008686   | 014846   |
| 53       | 027188            | .039497           | 046713   | .001870            | 001025   | 012739   |
| 54       | 037320            | .037430           | 031679   | .007611            | .006811  | 008974   |
| 55       | 036900            | .024770           | 018620   | .005258            | .013594  | 009746   |
| 56       | 026413            | .018424           | 013969   | .000499            | .018931  | 006310   |
| 57       | 014916            | .008002           | 008589   | .001420            | .020380  | 002523   |
| 58       | 008497            | 009974            | 003260   | -002271            | .018097  | 001069   |
| 59       | 005074            | 027510            | .001072  | .006701            | .012969  | 000396   |
| 60       | 006189            | 038414            | .009506  | .012496            | .007744  | 001036   |
|          |                   |                   |          |                    |          |          |

RUN NO. 79 16M 10-29-62 1602-1718 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| . TOTTINE 12 | ED MOTOCUANCE      |                    |                    |                      |
|--------------|--------------------|--------------------|--------------------|----------------------|
| H            | U                  | v                  | W                  | T                    |
|              | 0.21371            | 0.14504            |                    | •                    |
|              | 10E 00             | 0.16596<br>10E 00  | 0.75726<br>10E-01  | 0.34919<br>10E-02    |
| 0            | 1.000000           | 1.000000           | 1.000000           |                      |
| 1            | -830589            | •771016            | -711496            | 1.000000             |
| 2            | -632942            | -518631            | •439805            | -822088              |
| 4            | -488846            | -350875            | .288185            | ·603115              |
|              | .377799            | -236988            | .179763            | • 452447<br>• 348480 |
| 5<br>6       | -280539            | -157196            | .106339            | •259310              |
| 7            | •207903<br>•152121 | ·100957            | .049345            | .176683              |
| 8            | .093074            | -041233            | 000471             | .099771              |
| 9            | .044928            | 003942<br>035163   | 067755<br>111335   | .036239              |
| 10           | 000232             | - 055502           |                    | 019431               |
| 11           | 038854             | 055593<br>076104   | 100333             | 057606               |
| 12           | 072601             | 090195             | 096131             | 088840               |
| 13           | 096019             | 102585             | 108546             | 123741               |
| 14           | 103504             | 116140             | 133107<br>150180   | 153018<br>170890     |
| 15           | 108338             | 116579             | 144701             |                      |
| 16           | 104171             | 123900             | 144781             | 177041               |
| 17           | 102269             | 136049             | 127295             | 185870               |
| 18           | 108016             | 156321             | 125411<br>130602   | 196705               |
| 19           | 117412             | 182617             | 132024             | 206598<br>218206     |
| 20           | 117298             | 207903             | 10474              |                      |
| 21           | 116901             | 223853             | 124744             | 228793               |
| ?2           | 123487             | 233572             | 116043<br>113434   | 235501               |
| 23           | 132136             | 223250             | 109502             | 237543               |
| 24           | 140180             | 202859             | 098337             | 227624<br>214856     |
| 25           | 148492             | 182467             | 105371             |                      |
| 26<br>27     | 153700             | 162668             | 107332             | 198402               |
| 28           | 161310             | 140658             | 095872             | 170069<br>139598     |
| 29           | 159308             | 110070             | 075367             | 111586               |
|              | 158869             | 065907             | 070312             | 084772               |
| 30           | 158330             | 036230             | 047619             | 0.000.               |
| 31           | 144978             | 027430             | 020811             | 062234               |
| 32<br>33     | 123698             | 031799             | 021413             | 029742<br>002296     |
| 34           | 115352             | 028893             | 016666             | •008694              |
|              | 113068             | 026659             | 013543             | .004846              |
| 35           | 107940             | 020419             | 018139             |                      |
| 36           | 105325             | 027294             | 020275             | •002606              |
| 37           | 105467             | 038498             | 025542             | -010788              |
| 38<br>39     | 108881             | 044957             | 018422             | • 022352<br>• 030754 |
|              | 112446             | 039177             | 017764             | .033140              |
| 40           | 111088             | 019198             | 011930             | 00004.5              |
| 41<br>42     | 110937             | 000789             | 013054             | - 023845             |
| 43           | 108466             | .007085            | 009937             | •015682<br>•009618   |
| 44           | 102217             | .013430            | .007662            | 002057               |
|              | 102385             | -018209            | -015312            | 013246               |
| 45<br>46     | 093819             | .025785            | .010093            | - 015042             |
| 47           | 069165             | -029301            | 001233             | 015962<br>013666     |
| 48           | 041400<br>023110   | •040230            | .001026            | 011516               |
| 49           | 011349             | •055051<br>•062103 | .005547            | 016480               |
| 50           | ****               |                    | • 005556           | 022689               |
| 51           | 003718<br>002317   | .063497            | .020345            | 026754               |
| 52           | 000476             | -062886            | .028288            | 020534               |
| 53           | .004537            | •069570<br>•063102 | • 000243           | .000517              |
| 54           | .006887            | .053741            | •000564<br>•010200 | •018566<br>•025142   |
| 55           | .005171            | 048606             |                    | • 023142             |
| 56           | 001517             | •048808<br>•057029 | .024831            | .022257              |
| 57           | 001766             | .058033            | •027907            | .022110              |
| 58           | .009741            | .040321            | •035090<br>•051506 | -018900              |
| 59           | .013936            | .024876            | • 062377           | •013079<br>•014935   |
| 60           | .011631            | •032221            |                    |                      |
|              |                    |                    | • 063552           | .019038              |
|              |                    | 1. /               |                    |                      |

RUN NO. 79 16M 10-29-62 1602-1718 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| COS | 0 54 | CT | D4 |  |
|-----|------|----|----|--|
|     |      |    |    |  |

| 44        |                |                  |         |                          |                  |          |
|-----------|----------------|------------------|---------|--------------------------|------------------|----------|
| K         | U,V            | U.W              | U, T    | V.W                      | V,T              | W.T      |
|           |                |                  |         |                          |                  |          |
|           | 10E-02         | 10E-02           | 10E-02  | 10E-02                   | 10E-03           | 10E-03   |
| 0         | .023339        | 0/2100           |         |                          |                  | 101 03   |
| ĭ         | .128064        | 062189           | -013661 | •010991                  | 038483           | 030072   |
| ż         | -100003        | 594737           | .142656 | <ul><li>129767</li></ul> | 150523           | 425933   |
| 3         | 002394         | 658537           | .171341 | .039410                  | 038605           | 531163   |
| 4         |                | 654137           | .172458 | .002919                  | -133691          | 678941   |
| 7         | 035110         | 575295           | .112882 | .083530                  | .173843          | 666049   |
| 5         | .003308        | 463670           | 055050  |                          |                  |          |
| 6         | 062516         | 322877           | .055259 | .071586                  | .056398          | 427654   |
| 7-8       | 029807         |                  | .027161 | • 052259                 | .059235          | 278273   |
| 9-11      | • 023355       | 207674           | .011782 | .054060                  | .177675          | 210918   |
| 12-15     | 017440         | 071235<br>051990 | .003187 | •022130                  | .074277          | 161482   |
|           | ***********    | 021440           | .003967 | •030559                  | 068774           | 081764   |
| 16-20     | .020869        | 020555           | 001577  | - 003534                 | 010000           |          |
| 21-27     | .003667        | 019286           | .001407 | 003524                   | 010350           | 060648   |
| 28-36     | .000717        | 010351           |         | .004369                  | .012218          | 058546   |
| 37-47     | .000611        | 001992           | 001322  | .003390                  | .008298          | 021512   |
| 48-60     | .000542        | 003166           | -000021 | .002486                  | 000006           | 018318   |
|           | 0000712        | 003100           | .000195 | .000493                  | .001552          | 011416   |
|           |                |                  |         |                          |                  |          |
| A         |                |                  |         |                          |                  |          |
| QUADRATU  | RE SPECTRUM    |                  |         |                          |                  |          |
| K         |                |                  |         |                          |                  |          |
|           | U,V            | U.M              | U.T     | V. W                     | V,T              | W.T      |
|           |                |                  |         |                          |                  | .,,      |
|           | 10E-02         | 105.00           |         |                          |                  |          |
|           | 105-05         | 10E-02           | 10E-02  | 10E-02                   | 10E-03           | 10E-03   |
| 1         | . 309928       | 040400           |         |                          |                  |          |
| 2         |                | 040622           | -109408 | .053136                  | .143417          | 178482   |
| 3         | .066105        | 004436           | -110419 | .070024                  | .268410          | 302791   |
| 4         | -123477        | 009785           | .086071 | <ul><li>123951</li></ul> | .175446          | 399826   |
|           | . 357507       | 104478           | .053958 | -138000                  | 019842           | 258485   |
| 5         | <b>-270100</b> | 158880           | .039410 | .081149                  | 009172           | 104415   |
| 4         |                |                  |         |                          |                  |          |
| 6         | • 060252       | 168186           | .035748 | .039266                  | .075573          |          |
| 7-8       | 073155         | 097105           | .029571 | .011320                  |                  | 085122   |
| 9-11      | 028987         | 055719           | .005102 |                          | .082685          | 135049   |
| 12-15     | .003566        | 045267           | 002335  | 013961                   | .067089          | 074556   |
| 16-20     | 001095         | 046616           |         | 009072                   | • 043775         | 024295   |
|           |                | .040010          | -002555 | 009360                   | .007110          | 019552   |
| 21-27     | .002123        | 009176           | 000408  | - 002140                 |                  |          |
| 28-36     | 003859         | 007082           |         | 002149                   | 005357           | 001765   |
| 37-47     | 000829         | .000245          | 000660  | 002444                   | 003128           | 006725   |
| 48-60     | 004052         |                  | 000572  | .001815                  | .000923          | 001308   |
|           | . 004032       | .000379          | •000204 | .000804                  | 000706           | 000972   |
|           |                |                  |         |                          |                  |          |
| POWER SPE | CTRUM          |                  |         |                          |                  |          |
|           |                |                  |         |                          |                  |          |
| K         | U              | ]                | ٧       |                          | 1                | T        |
|           |                |                  |         | 7                        |                  | •        |
|           | 105            | 01               |         |                          |                  |          |
|           | 10E-           | 01               | 10E-01  | LOE-                     | 02               | 10E-03   |
| 0         | .048           | 357              | 011430  | 101                      |                  |          |
| 1         | .344           |                  | -011439 | .035                     |                  | • 040453 |
| 2         | .323           |                  | .139414 | . 469                    | 685              | .358751  |
| 3         | .273           |                  | ·196111 | .665                     | 865              | .471023  |
| 4         |                |                  | -217683 | . 802                    | 474              | - 556951 |
| •         | •204           | 726              | -156374 | . 693                    | 809              | .411978  |
| 5         | -164           | 04.0             |         |                          |                  |          |
| 6         | .133           |                  | -099344 | . 549                    | 627              | -236226  |
| 7-8       |                |                  | -079876 | • 465                    |                  | -185671  |
| 9-11      | •089           |                  | -093086 | . 384                    | 082              | .165515  |
|           | -051           |                  | -051292 | .254                     | 220              | .087133  |
| 12-15     | •039           | 529              | .038425 | .166                     |                  | .063347  |
| 16-20     | .0221          | P1.0             |         |                          |                  |          |
| 21-27     |                |                  | .025931 | .133                     |                  | .042146  |
| 28-36     | -0153          |                  | -017398 | .095                     | 819              | .031809  |
| 37-47     | .0110          |                  | .010555 | .071                     | 111              | .018186  |
| 48-60     | •0066          |                  | •007591 | - 046                    | 257              | .010414  |
| +U-UU ,   | -0044          | 107              | -004600 | .030                     |                  | .006347  |
|           |                |                  |         |                          | · - <del>-</del> | • 000371 |
|           |                |                  |         |                          |                  |          |

RUN NO. 79 LAN 10-29-62 1602-1718 EST 301 ROINT RUNNING MEAN, J.O POINT BLOCK AVERAGE

# MORHALIZED COSPECTRUM COVARIANCE

| M        | U,V                                     | U,W     | U,T     | V, W           | V,T           | W, T    |
|----------|---|---------|---------|----------------|---------------|---------|
|          | 0.19317                                 | 0.10300 | 0.34640 | 0.65375        | 0.21987       | 0.11723 |
|          | 10E 00                                  | 10E 00  | 10E-01  | 10E-01         | 10E-01        | 10E-01  |
| 0        | .072582                                 | 399271  | .381451 | .092327        | 074178        | 309356  |
| ĭ        | .067312                                 | 145534  | .232787 | .031244        | 100178        | 080734  |
| Ž        | .017976                                 | 101531  | .125774 | .034290        | 066790        | 030069  |
| 3        | 011164                                  | 062966  | .085384 | 022964         | .003575       | 018771  |
| 4        | 022092                                  | .011432 | .029200 | 060297         | .016022       | .037247 |
| •        | *************************************** |         |         | * (FIELD - 1); |               |         |
| 5        | .002129                                 | 003878  | 002626  | 056045         | .055022       | .025650 |
| 6        | 013430                                  | .004552 | 007057  | .018432        | .077387       | 026773  |
| 7        | .020156                                 | .021705 | 039370  | . 048604       | .103858       | 002849  |
| 8        | .061700                                 | .009731 | 107228  | 118717         | .105424       | .071405 |
| 9        | .014066                                 | .100176 | 133287  | 096528         | .048686       | .116067 |
| 10       | .021474                                 | .094257 | 156382  | 086911         | .067983       | .102254 |
| ii       | .031687                                 | .080759 | 149803  | 070380         | .026033       | .051650 |
| 12       | 028045                                  | .060139 | 102795  | .000801        | 011870        | .015673 |
| 13       | 02 170                                  | .027661 | 085086  | .015687        | 023602        | 002058  |
| 14       | 016927                                  | .010552 | 054228  | .014316        | 017328        | .014501 |
|          |   |         |         |                |               |         |
| 15       | 060485                                  | .059113 | 036801  | .045282        | 006023        | .005556 |
| 16       | 065430                                  | .015234 | .013912 | .065516        | .040143       | 053447  |
| 17       | 063644                                  | .127981 | 012528  | .032636        | .030359       | .019316 |
| 18       | 099060                                  | .066321 | 003485  | .076886        | 102468        | .030764 |
| 19       | 057619                                  | .061509 | 001384  | .070745        | 064755        | 002704  |
| 20       | 004419                                  | .046062 | 004608  | .043129        | <b>018023</b> | 030314  |
| 21       | .034369                                 | -051438 | 007658  | 027134         | 004945        | .028285 |
| 22       | .031328                                 | 020370  | .014092 | .056829        | 040039        | 016825  |
| 23       | .005603                                 | 008629  | .053092 | .040137        | 055257        | 008017  |
| 24       | 021176                                  | 081503  | .086588 | .106007        | 038250        | 045641  |
| 25       | .005344                                 | 076338  | .067320 | .135775        | 035782        | 037736  |
| 26       | .048690                                 | 054652  | .037546 | .008622        | 002504        | 017200  |
| 27       | .026294                                 | 043671  | .016341 | 021335         | .018868       | 023913  |
| 28       | 034534                                  | 051084  | 010229  | 034101         | 004638        | 021204  |
| 29       | .010925                                 | 060623  | .002151 | 018201         | 007107        | 026495  |
| 30       | 008462                                  | 021145  | 019668  | 043101         | .026099       | .034232 |
| COSPBCTR | UR                                      |         |         |                |               |         |
| K        | U.V                                     | U.W     | U, T    | V, W           | V, T          | W,T     |
|          | 10E-02                                  | 10E-02  | 10E-02  | 10E-02         | 10E-03        | 10E-03  |
| 0        | .019486                                 | 024174  | .005906 | 018253         | .102108       | .005334 |
| 1        | . 338463                                | 416148  | .128956 | 125317         | .299224       | 115758  |
| 2        | .286922                                 | 519112  | .216696 | .009416        | 203995        | 278091  |
| 3        | 034239                                  | 436107  | -251689 | . 165922       | 685325        | 397624  |
| 4        | 114509                                  | 316084  | .159364 | .139507        | 711770        | 331721  |
| 5        | .211831                                 | 258119  | .063538 | .021883        | 545713        | 165883  |
| 6        | .307293                                 | .108833 | -020954 | 036380         | 294981        | 031779  |
| 7        | -187120                                 | 125011  | .048542 | .026410        | .002503       | 081091  |
| 8        | .209242                                 | 237538  | .070446 | .084283        | .090866       | 215088  |
| 9-11     | .068375                                 | 152524  | .053127 | .093155        | 042459        | 245884  |
| 12-14    | .034997                                 | 063392  | .019860 | 064436         | 047687        | 010010  |
| 15-21    | 024955                                  | 105583  | .029709 | .019345        | .071946       | 148459  |
| 22-30    | .002187                                 | 165830  | .015780 | .024047        | .059093       | 139925  |

RUN NO. 79 16M 10-29-62 1602-1718 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

| H         | U,V        | U,W      | U,T     | V, W    | V. T    | W <sub>p</sub> T |
|-----------|------------|----------|---------|---------|---------|------------------|
|           | 0.19317    | 0.10300  | 0.34640 | 0.65375 | 0.21987 | 0.11723          |
|           | 10E 00     | 10E 00   | 10E-01  | 10E-01  | 10E-01  | 10E-01           |
| 1         | .090459    | .007358  | .098609 | .028057 | .009139 | 094562           |
| 2         | .072418    | 2020816  | .086277 | 028038  | .035438 | 043476           |
| 3         | .152278    | 010268   | .060935 | .030920 | .004022 | 024050           |
| 4         | .138792    | .027947  | .017592 | .045264 | 014531  | 029058           |
| 5         | .074789    | .080810  | 038145  | .023780 | 000475  | 032618           |
| 6         | .037684    | .047317  | 024838  | .040989 | .017521 | .009405          |
| 7         | .023233    | .095327  | 046995  | .022781 | -010864 | .024813          |
| 8         | .017727    | .050254  | 045673  | .052190 | .013041 | .032312          |
| 9         | .024565    | .044946  | 024236  | .103691 | 000993  | .029418          |
| 10        | .031692    | .035062  | .015918 | .066892 | 006407  | .027053          |
| 11        | .033283    | 071690   | .046927 | .017448 | .010172 | .014149          |
| 12        | .028249    | 063165   | .040904 | 037087  | .013346 | 007269           |
| 13        | .010040    | 048551   | .044901 | 083682  | 013556  | 056895           |
| 14        | .003750    | 038851   | .013062 | 012884  | 018443  | 051702           |
| 15        | 050138     | 017140   | .013440 | 077940  | -009856 | 022527           |
| 16        | 007150     | 003923   | .005170 | 029675  | 051101  | 011469           |
| 17        | .004368    | 013066   | .062833 | .009961 | 068499  | 024944           |
| 18        | 070372     | 066317   | .054441 | .020498 | .000980 | .039616          |
| 19        | 059830     | .001972  | .046422 | 000196  | 002716  | .052652          |
| 20        | 087352     | 032345   | .059794 | 040705  | .002652 | .008703          |
| 21        | 061907     | 041010   | -018404 | 043647  | .032776 | .039733          |
| 22        | 020452     | 036867   | 013372  | 032587  | .034302 | .046632          |
| 23        | .046071    | 011205   | 043845  | .015733 | .031958 | .048091          |
| 24        | .041382    | .001022  | 062317  | •025296 | .040642 | .057403          |
| 25        | .050111    | .030458  | 039131  | .033242 | .037094 | 013862           |
| 26        | .087074    | -077160  | 037050  | .051687 | .018481 | 042377           |
| 27        | .044435    | .062887  | 049775  | .046649 | .001734 | 023669           |
| 28        | .013630    | .036211  | 043812  | .026353 | 011010  | 028040           |
| 29        | .001878    | .051807  | 030420  | .027859 | 056396  | 035582           |
| 30        | 028048     | .073467  | 024536  | 027190  | 020954  | 056260           |
| QUADRATUR | E SPECTRUM |          |         |         |         |                  |
| K         | U,V        | U, W     | U, T    | V.W     | V,T     | W,T              |
|           | 10E-02     | 10E-02   | 10E-03  | 10E-02  | 10E-03  | 10E-03           |
| 1         | .420792    | .028961  | .450987 | .062734 | 020989  | 016214           |
| 2         | .615157    | .182220  | 032311  | .116635 | .053110 | 045043           |
| 3         | .626634    | - 250968 | 206837  | .126924 | .155749 | 001379           |
| 4         | .377442    | .115512  | .300273 | .017680 | 003683  | 092397           |
| 5         | .466795    | 040387   | .572136 | 073252  | 059321  | 255397           |
| 6         | .453122    | 164766   | .767975 | 074890  | .089728 | 188874           |
| 7         | .285145    | 127120   | .914934 | .027064 | .054537 | 056287           |
| 8         | .216642    | .003950  | .497595 | .080152 | 008028  | 012239           |
| 9-11      | 034391     | .016413  | .259367 | 031653  | -106152 | 062558           |
| 12-14     | 065852     | .036105  | .196529 | 001926  | .066293 | 072594           |
| 15-21     | .088458    | .018332  | .088073 | .022103 | 051422  | 077395           |
| 22-30     | .100924    | 026961   | .042579 | .029133 | 033961  | 034432           |

RUN NO. 79 16M 10-29-62 1602-1718 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

| н             | U        | ٧       | W        | T        |
|---------------|----------|---------|----------|----------|
|               | 0.30433  | 0.12261 | 0.34858  | 0.39428  |
|               | 10E 00   | 10E 00  | 10E-01   | 10E-02   |
| 0             | 1.000000 | 1.00000 | 1.000000 | 1.000000 |
| ĭ             | .615608  | .393797 | . 125504 | .519176  |
| 2             | .365918  | .133733 | .040725  | .259928  |
| 3             | -141208  | .107789 | 028856   | .197386  |
| 4             | 075832   | 024128  | 076605   | .048348  |
| 5             | 110330   | 035004  | 099290   | 044023   |
| 6             | 150177   | 090298  | 015318   | 088279   |
| 7             | 153666   | 160906  | 025960   | 114381   |
| 8             | 153767   | 238164  | .013700  | 187024   |
| 9             | 165774   | 147722  | 144847   | 214897   |
| 10            | 163034   | 163468  | 053225   | 187007   |
| 11            | 171134   | 183551  | 040746   | 153731   |
| 12            | 176020   | 135391  | 040979   | 125116   |
| 13            | 178913   | 066937  | 055084   | 099697   |
| 14            | 192377   | 050550  | .011512  | 128252   |
| 15            | ~.140366 | 026567  | 061715   | 093974   |
| 16            | 069671   | 044657  | .005150  | 006964   |
| 17            | 081635   | 059272  | 092961   | 021356   |
| 18            | 028962   | .047242 | 040889   | 083466   |
| 19            | 051670   | .085159 | .010859  | 057427   |
| 20            | 052836   | .106779 | .007981  | 004984   |
| 21            | 040797   | .081817 | 078270   | 051970   |
| 22            | .004895  | .073690 | .096815  | .017498  |
| 23            | .040961  | .104292 | 085988   | .045884  |
| 24            | .045021  | .080670 | .021548  | .063010  |
| 25            | .039597  | .064911 | .028908  | .069123  |
| 26            | -008857  | 002922  | .039224  | 018281   |
| 27            | .036344  | 101463  | 035873   | .001564  |
| 28            | .083055  | 180820  | 014530   | 031205   |
| 29            | .036663  | 154148  | .119459  | 009322   |
| 30            | .024028  | 086324  | .018357  | 003893   |
| POWER SPECTRU | н        |         |          |          |
| K             | U        | v       | W        | T        |
|               |          |         |          |          |
|               | 10E-01   | 10E-01  | 10E-02   | 108-03   |
| 0             | -017336  | .007716 | .014937  | .053486  |
| 1             | .301681  | .065813 | . 140255 | .415631  |
| 2             | -414089  | -111574 | -169331  | .492729  |
| 3             | .438986  | .152586 | .187970  | .535635  |
| 4             | .336921  | -114905 | .176872  | .416882  |
| 5             | -271394  | .078965 | .170617  | .206839  |
| 5<br>6<br>7   | -242198  | .059160 | . 159942 | .185208  |
|               | -214249  | -043495 | . 161035 | .156633  |
| 8             | .154381  | .046079 | .179336  | -146701  |
| 9-11          | .091972  | .046136 | .154752  | .131896  |
| 12-14         | .040650  | -046098 | .092022  | .078915  |
| 15-21         | .041350  | .038415 | . 139654 | .108265  |
| 22-30         | .054054  | .031435 | -184760  | .074862  |

RUN NO. 79 40M 10-29-62 1602-1718 EST

#### GROSS STATISTICS

| 1 CI<br>Transitional<br>Land | WIND S<br>SIGMA<br>SIGMA | A 7.5 DEG                      | MIND DIRE<br>Solar Rai<br>Net Radia |                                    |
|------------------------------|--------------------------|--------------------------------|-------------------------------------|------------------------------------|
|                              | WITH NO<br>RUNNING MEAN  | WITH 301 POINT<br>RUNNING MEAN | WITH 61 POINT<br>RUNNING MEAN       | 301 PT RUN MEAN<br>10 PT BLOCK AVE |
| VARIANCES                    |                          |                                |                                     |                                    |
| U                            | 0.56797E 00              | 0.33646E-00                    | 0.18891E-00                         | 0.25086E-00                        |
| ٧                            | 0.38536E-00              | 0.22755E-00                    | 0.18013E-00                         | 0.13627E-00                        |
| ¥                            | 0.11053E-00              | 0.10727E-00                    | 0.99266E-01                         | 0.43014E-01                        |
| Ť                            | 0.27383E-00              | 0.28727E-02                    | 0.20502E-02                         | 0.19257E-02                        |
| E                            | 0.53243E 00              | 0.33572E-00                    | 0.23416E-00                         |                                    |
| GUSTINESS RATIO              | <u>s</u>                 |                                |                                     |                                    |
| U                            | 0.16242                  | 0.12501                        | 0.09367                             | 0.10794                            |
| ٧                            | 0.13396                  | 0.10281                        | 0.09147                             | 0.07956                            |
| ₩                            | 0.07165                  | 0.07059                        | 0.06790                             | 0.04470                            |
| COVARIANCES                  |                          |                                |                                     |                                    |
| U. V                         | 0.15059E-00              | 0.39670E-01                    | 0.16440E-01                         | 0.36005E-01                        |
| U,W                          | -0.45694E-01             | -0.54880E-01                   | -0.33995E-01                        | -0.39528E-01                       |
| U, T                         | 0.17430E-00              | 0.96360E-02                    | 0.45800E-02                         | 0.79984E-02                        |
| V,W                          | -0.95557E-03             | -0.98257E-03                   | -0.29547E-02                        | 0.25283E-02                        |
| V, T                         | 0.81540E-01              | 0.47671E-02                    | 0.37928E-02                         | 0.33079E-02                        |
| W,T                          | 0.28376E-02              | -0.47368E-02                   | -0.39529E-02                        | -0.20820E-02                       |
| WE                           | 0.14587E-02              | 0.16191E-01                    | 0.99678E-02                         |                                    |
| NORMALIZED COVA              | RIANCES                  |                                |                                     |                                    |
| U.V                          | 0.32148                  | 0.14337                        | 0.08912                             | 0.19474                            |
| U,W                          | -0.18237                 | -0.28887                       | -0.24825                            | -0.38053                           |
| U,T                          | 0.44198                  | 0.30994                        | 0.23272                             | 0.36392                            |
| V.W                          | -0.00462                 | -0.00629                       | -0.02210                            | 0.03302                            |
| V,T                          | 0.25068                  | 0.18645                        | 0.19736                             | 0.20420                            |
| We T                         | 0.01631                  | -0.26983                       | -0.27709                            | -0.22876                           |

RUN NO. 79 40M 10-29-62 1602-1718 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

#### NORMALIZED COSPECTRUM COVARIANCE

| H  | U,V     | U, W    | U,T     | V,W      | V,T     | W, T     |
|----|---------|---------|---------|----------|---------|----------|
|    | 0.18445 | 0.13692 | 0.19686 | 0.13369  | 0.19223 | 0.14269  |
|    | 10E 00  | 10E 00  | 10E-01  | 10E 00   | 10E-01  | 10E-01   |
| 0  | .088837 | 248116  | .232828 | 022119   | .197536 | 276876   |
| 1  | .084855 | 225592  | .222563 | 011095   | .172325 | 222272   |
| 2  | .076765 | 182517  | .196295 | 000205   | .137166 | 145487   |
| 3  | .067298 | 137128  | .166925 | .016160  | .111180 | 090099   |
| 4  | .053539 | 098783  | .134178 | .027719  | .086907 | 045268   |
| 5  | .037842 | 065934  | .102197 | .030098  | .068683 | 010844   |
| 6  | .028900 | 039699  | .076328 | .031982  | .056754 | .011955  |
| 7  | .019878 | 015490  | .054073 | .030888  | .041012 | .023116  |
| 8  | .004940 | .001826 | .035504 | .026813  | .019455 | .026196  |
| 9  | 005696  | .011818 | .022547 | .026872  | 008024  | .028886  |
| 10 | 010075  | .007165 | .013990 | .025635  | 029961  | .033484  |
| 11 | 012903  | 003389  | .005911 | -019225  | 038601  | .036286  |
| 12 | 013241  | 012627  | 000733  | .012343  | 041011  | .037258  |
| 13 | 017603  | 020160  | 006786  | .003784  | 043356  | .042232  |
| 14 | 021043  | 012340  | 011128  | 003121   | 043967  | .043799  |
| 15 | 015445  | .005358 | 020044  | 004343   | 050950  | .044037  |
| 16 | 010797  | .020734 | 033061  | 001228   | 060324  | .042928  |
| 17 | 010238  | .034254 | 043332  | 001260   | 069371  | .040573  |
| 18 | 016026  | .054411 | 050971  | 000609   | 070557  | .042412  |
| 19 | 018524  | .071078 | 058784  | 007531   | 064886  | .048777  |
| 20 | 018073  | .081895 | 066767  | 023748   | 060430  | .056443  |
| 21 | 013721  | .090950 | 072015  | 032023   | 059720  | .058657  |
| 22 | 012446  | .090118 | 074207  | 031145   | 057898  | .054515  |
| 23 | 012939  | .085888 | 071839  | 030150   | 058065  | .050930  |
| 24 | 013354  | .086166 | 071330  | 031392   | 055002  | .044788  |
| 25 | 012967  | .084995 | 073971  | 036593   | 048872  | .032755  |
| 26 | 013840  | .088781 | 076076  | 044471   | 040675  | .015350  |
| 27 | 011888  | .081725 | 073330  | 047192   | 032854  | 002212   |
| 28 | 003793  | .069940 | 065745  | 048686   | 021858  | 010328   |
| 29 | .010358 | .061740 | 059264  | 048799   | 010300  | 012564   |
| 30 | .020486 | .052611 | 055379  | 049879   | 003751  | 013763   |
| 31 | .026286 | .041219 | 048357  | 045138   | 001359  | 013683   |
| 32 | .024541 | .032690 | 040615  | 039785   | .001944 | 014768   |
| 33 | .024801 | .025285 | 037088  | 032767   | -004442 | 012494   |
| 34 | .023122 | •014263 | 038236  | 032666   | .004787 | 010607   |
| 35 | .020174 | .004346 | 042312  | 028299   | .006796 | 005334   |
| 36 | .014726 | .004378 | 049029  | 013039   | .007695 | • 002965 |
| 37 | .009546 | .002230 | 052396  | 000561   | .008827 | .010816  |
| 38 | .006079 | 006480  | 052611  | 001188   | .012083 | .019082  |
| 39 | .007255 | 008582  | 053558  | 002754   | .013561 | .018186  |
| 40 | .008657 | 015405  | 053229  | 005954   | .012490 | .009690  |
| 41 | .004692 | 026491  | 048546  | 004343   | .012319 | .002757  |
| 42 | 000855  | 038523  | 043322  | .007046  | .014627 | 004367   |
| 43 | 002631  | 041255  | 043619  | .020810  | .012816 | 010256   |
| 44 | 002186  | 037498  | 045507  | .029787  | .007006 | 009343   |
| 45 | 002233  | 035448  | 042652  | .038197  | 001476  | 011343   |
| 46 | 003159  | 043119  | 038735  | .042748  | 013259  | 012267   |
| 47 | 009140  | 048893  | 031436  | .040865  | 020064  | 010420   |
| ∴8 | 015586  | 047809  | 026046  | .033764  | 018162  | 005867   |
| 49 | 023920  | 041931  | 021317  | .034719  | 014740  | 006323   |
| 50 | 038598  | 041093  | 012178  | .038937  | 009305  | 006356   |
| 51 | 050078  | 041172  | 003241  | - 042207 | 001830  | 002697   |
| 52 | 057169  | 034925  | .002069 | -037880  | .002058 | .006865  |
| 53 | 054814  | 027207  | .006035 | .030904  | .004290 | .008968  |
| 54 | 050570  | 017373  | .009843 | .021925  | .007981 | .006055  |
| 55 | 043954  | 015876  | .011806 | .016647  | .005046 | .008064  |
| 56 | 038169  | 015637  | .015420 | .017706  | .002307 | .010380  |
| 57 | 032800  | 011832  | .022317 | .020741  | .003956 | .013499  |
| 58 | 032088  | 001467  | .032977 | .018038  | .008285 | .008908  |
| 59 | 035370  | .002848 | .044146 | .010705  | .008271 | 001582   |
| 60 | 044164  | .005193 | .054728 | .006770  | .005089 | 008199   |

RUN NC. 79 40M 10-29-62 1602-1718 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

|          | TORONA!             | ONE COVARIAN                            | LE                 |                    |                    |                    |
|----------|---------------------|---|--------------------|--------------------|--------------------|--------------------|
| м        | U, V                | U, W                                    | U. T               | ٧, ₩               |                    |                    |
|          | 0.1844              |   |                    |                    | V, T               | W, T               |
|          | 10E 00              | 5 0.13692<br>10E 00                     |                    |                    |                    | 0.14269            |
|          |                     | 105 00                                  | 10E-01             | 10E 00             | 10E-01             | 10E-01             |
| 1        | .018941             |   | .029461            | 00772              |                    |                    |
| 2<br>3   | 025193              | 027631                                  |                    |                    |                    |                    |
| 4        | .032410             | ******                                  | -067906            |                    |                    | 1000175            |
| 5        | .038486             |   | .076184            | .019879            |                    |                    |
| -        | .041422             | 058530                                  | .082473            | -016808            | *******            |                    |
| 6        | •037680             | 058304                                  |                    |                    |                    | 002539             |
| 7        | .034481             | 057149                                  | .085274<br>.091312 | • 009009           |                    | 002002             |
| 8        | -033448             | 048025                                  | .096599            | • 000593           |                    | 005714             |
| 9<br>10  | • 027279            | 038972                                  | -100583            | 005473<br>007466   |                    | 006438             |
| 10       | •019276             | 043924                                  | -104043            | .003368            | 017006<br>025983   | 006190             |
| 11       | .011444             | - 040544                                |                    |                    | 023983             | 007658             |
| 12       | • 005978            | 048564<br>049977                        | .106222            | • 022767           | 033858             | 010627             |
| 13       | .006612             | 042534                                  | -101500            | -024771            | 039866             | 012835             |
| 14       | .006323             | 032926                                  | .090552<br>.078088 | -014885            | 044201             | 014038             |
| 15       | •009935             | 023992                                  | -070739            | -005328            | 044575             | 013859             |
| 16       |                     |   |                    | 000323             | 036308             | 017403             |
| 17       | •013017             | 024523                                  | .067728            | 003630             | 030767             |                    |
| 18       | •007622<br>•006268  | 034299                                  | .066773            | .000465            | 026012             | 023690             |
| 19       | • 006248            | 033197                                  | .064769            | .001600            | 020975             | 029804             |
| 20       | 001742              | 026124<br>026460                        | .062591            | 000172             | 014486             | 034921<br>035703   |
|          |                     | 020460                                  | .062991            | 009333             | 009209             | 029748             |
| 21       | 006992              | 034384                                  | .064841            | 01.225             |                    |                    |
| 22       | 006063              | 031253                                  | -061077            | 012356             | 000285             | 026488             |
| 23<br>24 | 000522              | 021118                                  | .055903            | 010086<br>001438   | • 003075           | 022869             |
| 25       | •009021             | 010977                                  | .051270            | • 000558           | •002066<br>•002033 | 022139             |
|          | .017535             | 008409                                  | .044514            | 008252             | •007477            | 025724             |
| 26       | .020505             | 011926                                  |                    |                    | •001411            | 021223             |
| 27       | .018253             | 005324                                  | .033836            | 019973             | .016327            | 010168             |
| 28       | .013466             | .004977                                 | .021017<br>.013342 | 02755B             | .020671            | 002958             |
| 29       | -006120             | .011849                                 | -014087            | 027376             | •019095            | .004508            |
| 30       | .000036             | .018543                                 | -016520            | 025901<br>026818   | -016260            | .010830            |
| 31       | - 002244            |   |                    | .050018            | .018118            | .012353            |
| 32       | 003260<br>004738    | .019393                                 | .014292            | 022522             | -020611            |                    |
| 33       | 009280              | -019917                                 | .008794            | 021845             | • 022032           | -014379            |
| 34       | 007211              | •022656<br>•021745                      | .003490            | 029992             | .021912            | •011794<br>•009663 |
| 35       | 000856              | • 020447                                | •002800            | 033692             | -024785            | .004763            |
| 2.4      |                     | *************************************** | 003602             | 024906             | .026890            | .001708            |
| 36<br>37 | .004764             | .019666                                 | 016452             | 022926             | 000074             |                    |
| 38       | •002615<br>••002923 | .021783                                 | 027134             | 025785             | •028074<br>•034740 | 004058             |
| 39       | 003999              | -019519                                 | 033814             | 029407             | - 040549           | •010409            |
| 40       | 003692              | •015992<br>•007644                      | 038658             | 026131             | .040917            | •015097<br>•018240 |
|          |                     | ******                                  | 037613             | 017336             | .039522            | .016641            |
| 41       | 007667              | .007172                                 | 034030             | - 012047           |                    |                    |
| 42<br>43 | 012435              | .005860                                 | 030870             | 012067<br>008356   | •033777            | .012068            |
| 44       | 006324              | .002382                                 | 030926             | 000612             | -025984            | .008701            |
| 45       | 000391<br>-002447   | -002997                                 | 037684             | .011491            | •016576<br>•008312 | .008802            |
|          | *002447             | .009101                                 | 044429             | -015310            | • 002153           | .008783<br>.010482 |
| 46       | .010653             | .007889                                 | - 050440           |                    |                    | • 010482           |
| 47       | -014921             | .000798                                 | 050660<br>055380   | .019165            | 008103             | -011440            |
| 48       | -010619             | 005659                                  | 059834             | .025363            | 021296             | .012146            |
| 49<br>50 | 000114              | 004528                                  | 066553             | •026192<br>•017282 | 031796             | -017933            |
| 50       | 007254              | 006640                                  | 073627             | .007186            | 035744             | •025930            |
| 51       | 018053              |   |                    |                    | 033726             | •035754            |
| 52       | 029317              | 008581                                  | 078011             | 007037             | 027234             | 03000              |
| 53       | 038011              | 009377<br>013482                        | 080691             | 012978             | 021229             | .038880<br>.036311 |
| 54       | 040677              | 019930                                  | 082763             | 011547             | 015359             | -022348            |
| 55       | 042048              | 023247                                  | 081697<br>078969   | 010082             | 009285             | .007266            |
| 56       | 0000                |   | - 0 1 0 7 0 7      | 005806             | 004192             | 002524             |
| 57       | 038302              | 018570                                  | 074473             | .002227            | - 0034.65          |                    |
| 58       | 029642              | 005444                                  | 066955             | .004922            | 002401             | 002143             |
| 59       | 023732<br>010498    | .011403                                 | 058441             | -018102            | 004131<br>004780   | 001106             |
| 60       | .006256             |   | 044805             | .034601            |                    | 006694<br>014664   |
|          |                     | *********                               | 029380             | .046482            |                    | 017708             |
|          |                     |   | 53                 |                    | -                  |                    |

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| н  | U        | V         |                    |                          |
|----|----------|-----------|--------------------|--------------------------|
|    | 0.18890  | 0.18011   | 0.99239            |                          |
|    | 10E 00   | 10E 00    | 10E-01             | 0.20516<br>10E-02        |
| 0  | 1.000000 | 1.000000  | 1.000000           | 1.000000                 |
| 1  | .864675  | .827532   |                    |                          |
| 2  | -698966  |           | . 726621           | . 855442                 |
| 3  |          | .613231   | • 429162           | .667584                  |
|    | .563445  | .446103   | .234730            | -518108                  |
| •  | •441395  | .315084   | •112153            | .394379                  |
| 5  | .337701  | -214577   | • 029643           | .295464                  |
| 6  | -261127  | .146097   | 023840             | -214495                  |
| 7  | .201755  | .085007   | 057057             |                          |
| 8  | .143455  | .028799   | 066872             | -140170                  |
| 9  | .086166  | 020273    | 065343             | •074596<br>•013383       |
| 10 | .030716  | 051686    | 059288             |                          |
| 11 | 022530   |           |                    | 039200                   |
| 12 | 062709   | 069016    | 051582             | 074685                   |
| 13 |          | 084579    | 052370             | 109622                   |
|    | 094934   | 105838    | 056534             | 140917                   |
| 14 | 127139   | 132175    | 071212             | 167087                   |
| 15 | 160972   | 164357    | 088352             | - 184307                 |
| 16 | 196741   | 201457    | 094795             | 186397                   |
| 17 | 223483   |           |                    | 208303                   |
| 18 | 247624   | 234206    | 086526             | 227747                   |
| 19 |          | 245760    | 086737             | 236309                   |
| 17 | 270920   | 248906    | 110689             | 243411                   |
| 20 | 295284   | 249290    | 138293             | 255550                   |
| 21 | 311914   | 246337    | 155029             |                          |
| 22 | 319384   | 249031    | 168731             | 262672                   |
| 23 | 319776   | 241271    |                    | 258914                   |
| 24 |          |           | 170912             | 253135                   |
|    | 316675   | 227374    | 163060°            | 246447                   |
| 25 | 305272   | 223838    | 163716             | 232239                   |
| 26 | 285155   | 216633    | 160610             | 214211                   |
| 27 | 259982   | 202654    | 140956             |                          |
| 28 | 237295   | 184904    | 123968             | 190533                   |
| 29 | 208418   | 164472    | 112491             | 158902<br>126298         |
| 30 | 167934   | 1 204 1 1 |                    |                          |
| 31 | 125846   | 135411    | 095811             | 096630                   |
| 32 |          | 100929    | 069239             | 069414                   |
|    | 091642   | 071872    | 039380             | 045144                   |
| 33 | 057316   | 042941    | 006782             | 030097                   |
| 34 | 027321   | 015275    | .003510            | 019471                   |
| 35 | 006240   | .014922   | 014324             |                          |
| 36 | .008794  | .049004   | .016324            | 011748                   |
| 37 |          |           | .026224            | 010399                   |
| 38 | .018595  | .076790   | • 022853           | 016724                   |
|    | -028258  | -093818   | .017041            | 028625                   |
| 39 | .039022  | .094651   | .018479            | 038297                   |
| 40 | .047145  | .088176   | .038166            | - 030403                 |
| 41 | .056314  | -078846   | .057358            | 038602                   |
| 42 | -062041  | .075718   |                    | 038279                   |
| 43 | .059481  |           | • 053922           | 034786                   |
| 44 |          | .069716   | .039949            | 032055                   |
| ** | .062878  | .063805   | .028817            | 038139                   |
| 45 | .069135  | -056008   | .026860            | 044460                   |
| 46 | .071193  | .044559   | . 025578           |                          |
| 47 | .066367  | .035210   |                    | 051052                   |
| 48 | -060721  |           | .030936            | 052092                   |
| 49 |          | .032767   | - 044605           | 043682                   |
| ** | .055247  | .034256   | • 059529           | 028596                   |
| 50 | .048276  | .040170   | .061019            | 017834                   |
| 51 | .037653  | .039358   | . 063252           | 012531                   |
| 52 | .029275  | .033603   | . 052516           |                          |
| 53 | .018786  | .024938   |                    | 017257                   |
| 54 | .009127  | -019411   | •045217<br>•044523 | 013755<br>009790         |
| 55 | 005946   | 014774    |                    | 2 3 0 7 1 7 0            |
| 56 | 013940   | .014734   | -038203            | 006850                   |
| 57 | 025776   | .008212   | - 023908           | .006530                  |
| 8  |          | 000960    | .016307            | <ul><li>023390</li></ul> |
| _  | 038286   | 007567    | .016380            | .047973                  |
| 59 | 043582   | 011027    | .013157            | .075690                  |
| 50 | 042587   | 000818    | 001224             | 004334                   |
|    |          | 200       | 1001554            | -094236                  |

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| COS | PEC | TRUM |
|-----|-----|------|
|     |     |      |

| K              | U, V               | U,W     | U, T                                    | V,W                   | V, T  | W, T              |
|----------------|--------------------|---------|---|-----------------------|---|-------------------|
|                | 10E-02             | 10E-02  | 10E-02                                  | 10E-02                | 10E-03  | 10E-03            |
| 0              | .083726            | 049378  | .008285                                 | - 021046              | 000417  |                   |
| 1              | .293518            | 448623  | -101071                                 | 021965<br>.081129     | .022417                                       | 007480            |
| 2              | .215770            | 626790  | .105041                                 | .201038               | . 370852                                      | 180019            |
| 3              | . 323030           | 606459  | .082928                                 | .096503               | . 596244                                      | 322239            |
| 4              | . 290691           | 257428  | .051227                                 | 091773                | .779304<br>.588854                            | 471398            |
| -              | 1.000              |         |   |                       | 1300034                                       | 445142            |
| 5<br>6         | . 144485           | 129972  | .029012                                 | 073989                | -302251                                       | 307674            |
| 7-8            | .114393            | 188877  | .021636                                 | 037700                | -197132                                       | 210164            |
| 9-11           | •105575<br>•010999 | 261690  | .023909                                 | 053083                | -146843                                       | 269625            |
| 12-15          | • 005491           | 148041  | .011190                                 | 045846                | .056117                                       | 164705            |
|                | ******             | 017376  | .002604                                 | 014297                | .036603                                       | 11391u            |
| 16-20          | .003051            | 034854  | .001254                                 | 017817                | .065196                                       | 010101            |
| 21-27          | 003921             | 010962  | .000550                                 | 001468                |   | 049684            |
| 28-36          | .005222            | 005436  | .000295                                 | 001245                | .009667<br>.015430                            | 035235            |
| 37-47          | .000723            | 001762  | .000091                                 | 002333                | •019430                                       | 023275            |
| 48-60          | - 000444           | 001426  | 000119                                  | 003470                | .002838                                       | 012567            |
|                |                    |         |   | 0003110               | •002636                                       | 005682            |
| QUADRATU       | RE SPECTRUM        |         |   |                       |   |                   |
| K              | U. V               | U,W     | U, T                                    | V,W                   | V,T   | W, T              |
|                | 105.02             |         |   |                       |   | ·                 |
|                | 10E-02             | 10E-02  | 10E-03                                  | 10E-02                | 10E-03  | 10E-03            |
| 1              | . 153421           | 238922  | .913318                                 | 097980                | 023904  | 130860            |
| 2              | - 145836           | 277569  | .862384                                 | . 034056              | 195501  | 137896            |
| 4              | .134800            | 248528  | •545750                                 | .102253               | 201365  | 044546            |
| 5              | .129771            | 109546  | -281242                                 | .025453               | .027409                                       | .057390           |
| ,              | .141201            | 070313  | -204147                                 | 006906                | .108763                                       | .067118           |
| 6              | .134747            | 096392  | .144068                                 | 020255                |   |                   |
| 7-8            | . 059546           | 060031  | .064005                                 | .020255               | . 138146                                      | .011122           |
| 9-11           | .049141            | 015323  | .006064                                 | .004237               | 115063  | 023370            |
| 12-15          | 008858             | 011026  | .050361                                 | .025527               | .021807                                       | .006094           |
| 16-20          | .009483            | .017857 | .004120                                 | • 020934<br>-• 026412 | • 006190                                      | .001038           |
|                |                    |         | *************************************** | 020412                | -006877                                       | .003997           |
| 21-27          | .001440            | 002419  | .004283                                 | .008476               | .001434                                       | - 003510          |
| 28-36          | .008042            | .000730 | .002181                                 | .004063               | .000697                                       | 002519            |
| 37-47          | .003007            | .000195 | 001146                                  | .003546               | 001084  | 002682            |
| 48-60          | .002051            | 002836  | -001846                                 | .000653               | 000745  | 000007<br>.000219 |
| POWER SPE      | CTRUM              |         |   |                       |   |                   |
| K              | U                  | 1       | ٧                                       |                       |   |                   |
|                |                    |         | •                                       | H                     |   | T                 |
|                | 10E-               | 01      | 10E-01                                  | 10E-                  | 01  | 10E-03            |
| 0              | .030               |         | .013860                                 | .003                  | 741   | .021110           |
| 1              | -268               | . —     | .166145                                 | .055                  | -   | -253022           |
| 2              | .348               |         | -255827                                 | .088                  |   | • 323869          |
| 3              | •361               |         | -298103                                 | -101                  |   | • 351338          |
| 4              | -202               | 313     | .187171                                 | .067                  |   | .250453           |
| 5              | •095               | 917     | .106587                                 | 04.0                  | 212   |                   |
| 6              | -085               | _       | .102877                                 | -049                  |   | .138929           |
| 7-8            | .079               |         | .084089                                 | • 058                 |   | .103957           |
| 9-11           | .045               |         | .063100                                 | .061                  | -   | .093565           |
| 12-15          | .029               |         | .030775                                 | • 043<br>• 028        |   | .051290           |
| 14 25          |                    |         |   | • 02 8                | , , <u>, , , , , , , , , , , , , , , , , </u> | .032656           |
| 16-20          | .016               |         | .024933                                 | .017                  | 642   | .022066           |
| 21-27          | .008               | _       | .011938                                 | .012                  |   | .012196           |
| 28-36<br>37-47 | -007               |         | .00844B                                 | .007                  |   | .007654           |
| 37-47<br>48-60 | -004               |         | .005500                                 | .005                  |   | .005365           |
| +J-00          | .002               | 424     | .003350                                 | .003                  | <b>612</b>                                    | .002890           |
|                |                    |         |   |                       |   |                   |

RUN NO. 79 40M 10-29-62 1602-1718 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

# NORMALIZED COSPECTRUM COVARIANCE

| H              | U,V              | U, W     | U, T               | V,W               | V.T                | W, T              |
|----------------|------------------|----------|--------------------|-------------------|--------------------|-------------------|
|                | 0.18494          | 0.10386  | 0.21982            | A 74557           | 0.14000            |                   |
|                | 10E 00           | 10E 00   | 10E-01             | 0.76557<br>10E-01 | 0.16203<br>10E-01  | 0.90997<br>10E-02 |
| 0              | . 194682         | 380587   | .363858            | .033025           | 201115             |                   |
| 1              | .110544          | 227925   | -230489            | • 077784          | - 204145           | 228799            |
| 2              | .074567          | 091675   | .104562            | 037050            | .033146<br>012346  | 029636            |
| 3              | .045977          | 067765   | .039390            | 041195            | .009621            | •005352           |
|                | 000869           | 076108   | .000177            | .024314           | .003878            | 020001<br>-029166 |
| 5              | 027086           | 042534   | .003907            | -052878           | 003741             | 036315            |
| 6              | 029164           | .052592  | .032355            | .033632           | .013895            |                   |
| 7              | 008806           | .118022  | .022063            | .015665           | 003436             | 017841<br>022114  |
| 8              | .011026          | .107293  | 047825             | 058668            | .017412            | .013037           |
| 9              | 024536           | .094714  | 127442             | 039880            | 003936             | .037839           |
| 10             | 033819           | .114908  | 117866             | 015165            | 012033             | 050000            |
| 11             | 039280           | .072198  | 124211             | 024631            | 016981             | •050823           |
| 12             | 048658           | .104885  | 177438             | .009277           | 048109             | .020992           |
| 13             | 018948           | .092317  | 180355             | 034636            | 006360             | •020283           |
| 14             | 011421           | .110115  | 172236             | 057123            | 046747             | .089136           |
| 15             | - 044070         |          |                    |                   | 1010141            | .083139           |
| 16             | 044979<br>058059 | .096008  | 129972             | 012152            | 030697             | .091822           |
| 17             | 087473           | -086676  | 066234             | 053184            | .039903            | .019536           |
| 18             | 110051           | .057412  | 033245             | 018897            | 018254             | 002638            |
| 19             | 106983           | .051238  | 037485             | .031024           | 076240             | .016046           |
|                |                  | • 050900 | 029319             | • 099925          | 066005             | 010457            |
| 20             | 078218           | .031324  | 002255             | .043824           | .008395            | .037736           |
| 21             | .010983          | 007161   | .041061            | .013759           | .028631            | 005818            |
| 22             | .055168          | 079908   | .096940            | 012194            | 036127             | 058554            |
| 23             | .054035          | 157632   | .165728            | .001498           | 030896             | 081313            |
| 24             | .013615          | 145096   | -161248            | .061120           | 055345             | 078418            |
| 25             | .057336          | 149918   | .143579            | 009889            | - 020550           |                   |
| 26             | .096172          | 186458   | .121557            | 050896            | 029558             | 041854            |
| 27             | .106118          | 165745   | .138271            | 018939            | 003537             | 031071            |
| 28             | .088262          | 107572   | .123331            | 025476            | •002091<br>•027592 | 046503            |
| 29             | .085342          | .034112  | .110320            | 021540            | .093151            | 083417<br>043750  |
| 30             | .093138          | •069264  | .050985            | .035725           | .088635            | .020862           |
| COSPECTRU      | м                |          |                    |                   |                    |                   |
| K              | U•V              | U+W      | U, T               | V,W               | V,T                | W. T              |
|                | 10E-02           | 10E-02   | 10E-02             | 10E-02            | 10E-03             | 10E-03            |
| 0              | .007488          | .009908  | 005864             | 001190            | 004404             |                   |
| 1              | .505372          | 356812   | .073745            | • 024965          | .006484<br>.264373 | -011411           |
| 2              | .633769          | 707632   | .162347            | .079409           | .254293            | 096920            |
| 3              | . 372458         | 673140   | .143716            | . 093696          | .147577            | 224792            |
| 4              | -269800          | 371304   | .036559            | 009223            | .087030            | 167450<br>.003887 |
| 5              | •419750          | 305612   | 018404             | 030143            | 2200               |                   |
| 6              | - 221560         | 152687   | .018606<br>.035622 | 039163            | -078940            | 009174            |
| 7              | -166945          | 074363   | .059579            | .008595           | .112454            | 066932            |
| 8              | . 304900         | 050227   | .060076            | 016815<br>020024  | 164565             | 098104            |
| 9-11           | .040410          | 131936   | .046075            | .115791           | -209957            | 079437            |
|                |                  |          |                    | • 443171          | • 124692           | 134560            |
| 12-14          | .034601          | 198803   | .005866            | .058632           | .136855            | 038650            |
| 15-21<br>22-30 | .071570          | 073643   | .014078            | 008208            | -157487            | 092051            |
| 66-30          | .083583          | 042920   | -009105            | 062386            | .135835            | 103127            |

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| м          | U, V     | U <sub>0</sub> W | U, T          | V.W                  | V, T              | W.T               |
|------------|----------|------------------|---------------|----------------------|-------------------|-------------------|
|            | 0.18494  | 0.10386          | 0.21982       | 0.76557              | 0.14000           |                   |
|            | 10E 00   | 10E 00           | 10E-01        | 10E-01               | 0.16203<br>10E-01 | 0.90997<br>10E-02 |
| 1          | .069447  | 048341           | 004617        | 000001               |                   |                   |
| 2          | .089952  | 025319           | .096517       | 028991               | 034286            | 013279            |
| 3          | .134384  |                  | •069799       | 039391               | 027118            | 066194            |
| 4          |          | .001349          | .024535       | .010277              | 023981            | 007885            |
|            | .149417  | .057383          | 060014        | .052813              | 047809            | .004035           |
| 5          | .162964  | .059285          | 134990        | .063389              | 100338            | .017308           |
| 6          | .194119  | .099571          | 119648        | .117419              | 094931            | 039601            |
| 7          | .169579  | .090900          | 065062        | -121416              | 127297            |                   |
| 8          | .133987  | .091206          | 068775        | -079436              |                   | 034228            |
| 9          | .085810  | 005862           | 070477        |                      | 097048            | .008248           |
| 10         | -019448  | .001699          | 068583        | -009484              | 106443            | .022651           |
|            |          | ,                |               | .013756              | 029449            | .041443           |
| 11         | 000043   | .037397          | 051801        | . 055421             | 012048            | .031531           |
| 12         | 012665   | • 029956         | 045233        | . 079949             | 012858            |                   |
| 13         | 028104   | .000186          | 026882        | 034906               | 046793            | 033746            |
| 14         | 051038   | 016861           | 025939        | 109196               |                   | 012158            |
| 15         | 091407   | 037165           | .001837       |                      | 041590            | 006412            |
| • •        |          | 003.103          | *001831       | 087008               | .013660           | 021379            |
| 16         | 127061   | 072481           | .019766       | 090542               | .066307           | 009370            |
| 17         | 122156   | 028303           | .041642       | 087760               | .085096           |                   |
| 18         | 083827   | 075122           | .097392       | 046487               | .038788           | -026725           |
| 19         | 097845   | 079524           | .087121       | 031179               |                   | 029958            |
| 20         | 123867   | 016266           | .028418       | 034611               | -028226           | .006123           |
|            |          |                  | ************* | 034011               | .053334           | .068911           |
| 21         | 084146   | 076574           | .044279       | 062397               | -140509           | .037311           |
| 22         | 104892   | 035936           | .035752       | 077375               | -186699           |                   |
| 23         | 046205   | .024465          | .043749       | . 025644             | -111104           | -004607           |
| 24         | 028480   | 008335           | .077147       | 015538               |                   | .011510           |
| 25         | 001112   | 034210           | .047511       | .024626              | -098863           | .002546           |
| 24         |          |                  |               | • 02 4020            | .050910           | .037607           |
| 26         | .018855  | 007134           | .026575       | 040130               | 041125            | - 014120          |
| 27         | .032887  | .012338          | .005204       | .014265              | 026933            | 016120            |
| 28         | .022739  | .046163          | 029516        | .094230              |                   | 043278            |
| 29         | -116228  | .033072          | 045709        |                      | 019248            | 097716            |
| 30         | .136195  | .052180          | 021575        | • 072121<br>• 094229 | 020022<br>065150  | 015614<br>.010475 |
| QUADRATURE | SPECTRUM |                  |               |                      |                   |                   |
|            |          |                  |               |                      |                   |                   |
| K          | U,V      | U, W             | U, T          | V.W                  | V.T               | W, T              |
|            | 10E-01   | 10E-02           | 10E-03        | 10E-07               | 10E-03            | 10E-04            |
| 1          | .048219  | -119615          |               |                      |                   |                   |
| 2          | .121875  |                  | 650384        | .064661              | 455206            | 030286            |
| 3          |          | •279216          | 794554        | . 239043             | 728624            | 328393            |
| 4          | -128278  | . 233295         | 390350        | .235152              | 435728            | 281172            |
| 5          | .053789  | 001871           | -179921       | 003102               | 043515            | 533764            |
| ,          | .014787  | 078153           | -266774       | 122232               | .021414           | 919898            |
| 6          | 001054   | 094565           | .294344       | - 000550             |                   |                   |
| 7          | 009008   | 158614           |               | 088559               | -150022           | 308642            |
| 8          | 008203   | 172995           | -473348       | 061820               | -128220           | -229838           |
| 9-11       | .009835  |                  | .542989       | 119879               | .109383           | .059640           |
| 12-14      | .000905  | 039800           | -391304       | 037709               | 101325            | 899962            |
| 7          | • 000705 | 050730           | -041722       | 021935               | 026299            | 236920            |
| 15-21      | .001741  | 017897           | .067153       | .003718              | 034165            | 2/2               |
| 22-30      | .003511  | 027926           | .036396       | 000761               |                   | -263554           |
|            |          |                  |               |                      | 024818            | · 494498          |

RUN NC. 79 40M 10-29-62 1602-1718 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

| H            | U                 | V        | H        | T        |
|--------------|-------------------|----------|----------|----------|
|              | 0.25090           | 0.13632  | 0.42993  | 0.19260  |
|              | 10E 00            | 10E 00   | 10E-01   | 10E-02   |
| 0            | 1.000000          | 1.000000 | 1.000000 | 1.000000 |
| 1            | .637152           | .349926  | .172140  | .405984  |
| 2            | .317891           | .078609  | .005090  | .080836  |
| 3            | .182479           | .021333  | 051842   | .003065  |
| •            | .080674           | .099697  | 057074   | 070748   |
| 5            | 040556            | 032109   | .061874  | 047267   |
| 6            | 141852            | 035583   | 031330   | •016482  |
| 7            | 210210            | 061162   | 105829   | .026458  |
| 8            | 234897            | 078263   | 103599   | 040460   |
| 9            | 254920            | 143032   | 135073   | 128453   |
| 10           | 312777            | 126990   | - 152410 | - 114013 |
| ii           |                   |          | 152419   | 116913   |
| 12           | 361552            | 112638   | 051210   | 097922   |
|              | 337575            | 100266   | 048293   | 170499   |
| 13           | 229001            | 055041   | 104351   | 194985   |
| 14           | 174877            | 148939   | 135508   | 242213   |
| 15           | 128784            | 134781   | 066459   | 146444   |
| 16           | 082401            | 109528   | .021541  | 018541   |
| 17           | .016983           | 029805   | 042893   | •001002  |
| 18           | .019538           | 118400   | 117362   | 093162   |
| 19           | 027957            | 108439   | .007831  | 101774   |
| 20           | .005534           | 062137   | .021012  | +.121331 |
| 21           | .082301           | .087021  | .021135  | 010259   |
| 22           | .182805           | .048019  | .115507  | .069249  |
| 23           | .260988           | .048046  | .093352  | .101296  |
| 24           | .245742           | .053392  | .106103  | .125518  |
| 25           | .213859           | .134406  | .032207  | .115769  |
| 26           | .185467           | .092904  | .118338  |          |
| 27           | •152070           | 046949   |          | -157411  |
| 28           | .095310           |          | .091328  | -136062  |
| 29           |                   | 046240   | .071474  | .143332  |
| 27           | .003569           | .051346  | .060655  | -215451  |
| 30           | 094860            | .059207  | 017730   | .108847  |
| POWER SPECTR | :UM               |          |          |          |
| K            | υ                 | V        | W        | 1        |
|              | 10E-01            | 10E-01   | 10E-02   | 10E-03   |
| 0            | .004108           | .010216  | 003149   | .008931  |
| 1            | .201138           | .107142  | .132670  | .143126  |
| 2            | .403001           | .132626  | .275580  | .195790  |
| 3            | .473950           | .122480  | .313721  | .170667  |
| 4            | .289610           | .082958  | .220123  | .097417  |
| -            | 143103            | 032434   | 100075   |          |
| 5            | .163102           | .075476  | .189372  | .088507  |
| 6            | -110435           | .059524  | . 154538 | -105097  |
| 7            | •127331           | .050356  | .144283  | -140018  |
| 8            | •124551<br>044072 | .056787  | .175325  | .127980  |
| 9-11         | .066873           | .061592  | .235017  | .105496  |
| 12-14        | .078779           | .054309  | .178043  | .047075  |
| 15-21        | .043193           | .046583  | .146628  | .059929  |
| 22-30        | .025320           | .038258  | . 205582 | .046633  |

RUN NO. 79 16M 10-29-62 1602-1718 EST RUN NO. 79 40M 10-29-62 1602-1718 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

# COHERENCE WITH QUADRATURE

| ĸ   | U  | V  | W  | T   |
|---|--|--|--|---|
|   | 10E 00   | 10E 00   | 108 00   | 10E 00  |
| 0<br>1<br>2<br>3<br>4                     | .551799<br>.442017<br>.235188<br>.121412<br>.155189            | .178699<br>.600552<br>.481311<br>.380926                       | • 320382<br>• 221550<br>• 242075<br>• 252185                   | •111890<br>•508170<br>•395060<br>•315373            |
| 5<br>6<br>7-8<br>9-11<br>12-15            | .265828<br>.175976<br>.069316<br>.089594                       | •362673<br>•190638<br>•108332<br>•124064                       | .332078<br>.299269<br>.187599<br>.224654<br>.162645            | .243139<br>.141623<br>.160317<br>.082282            |
| 16-20<br>21-27<br>28-36<br>37-47<br>48-60 | •132682<br>•114357<br>•077868<br>•166649<br>•105587<br>•122724 | .086693<br>.172828<br>.122936<br>.127421<br>.089677<br>.115242 | .114699<br>.149615<br>.130628<br>.156086<br>.110993<br>.160926 | •129868<br>•122388<br>•136254<br>•092190<br>•114670 |

# 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

# COHERENCE WITH QUADRATURE

| K                        | U   | V   | W  | T  |
|--------------------------|---|---|--|--|
|                          | 10E 00  | 10E 00  | 108 00   | 10E 00   |
| 0 1 2 3 4                | .804419<br>.801210<br>.728168<br>.688008<br>.711661 | .824113<br>.680175<br>.583272<br>.604146<br>.595301 | ~•009297<br>•349842<br>•432069<br>•427799<br>•364725     | .116774<br>.456416<br>.549114<br>.451414                 |
| 5<br>6<br>7<br>8<br>9-11 | .717646<br>.561849<br>.501674<br>.483492<br>.387940 | .553025<br>.506102<br>.537992<br>.724008            | • 432536<br>• 492529<br>• 242848<br>• 266585<br>• 468839 | • 405272<br>• 447686<br>• 597526<br>• 666828<br>• 594943 |
| 12-14<br>15-21<br>22-30  | •283731<br>•202678<br>•293666                       | •325805<br>•447511<br>•385280                       | .217927<br>.311527<br>.383376                            | •300669<br>•382249<br>•180264                            |

#### RUN NO. 80A 16M 11- 1-62 2215-2315 EST

# GROSS STATISTICS

| CLEAR          | WIND SPE                                |   |                            | CTION 288 DEG              |
|----------------|---|---|----------------------------|----------------------------|
| STABLE         | SIGHA A                                 | 5.7 DEG                                 | SOLAR RAD                  |                            |
| LAND           | SIGMA E                                 | 2.5 DEG                                 | NET RADIA                  | ATION -0.15                |
|                |   |   |                            |                            |
|                |   |   |                            |                            |
|                | WITH NO                                 | WITH 301 POINT                          | WITH 61 POINT              | 301 PT RUN MEAN            |
|                | RUNNING MEAN                            | RUNNING MEAN                            | RUNNING MEAN               | 10 PT BLOCK AVG            |
|                |   |   |                            |                            |
| VARIANCES      |   |   |                            |                            |
| *******        |   |   |                            |                            |
|                |   |   |                            |                            |
| U              | 0.28963E-00                             | 0.10403E-00                             | 0.94042E-01                | 0.57770E-01                |
| Y              | 0.94042E-01                             | 0.43116E-01                             | 0.42942E-01                | 0.15479E-01                |
| 7              | 0.19615E-01<br>0.49101E-01              | 0.18128E-01<br>0.75957E-02              | 0.18805E-01<br>0.64447E-02 | 0.46849E-02<br>0.43255E-02 |
| •              | 0.441012-01                             | 0.134316-02                             | 0.044416-02                | 0.432336-02                |
| € .            | 0.20164E-00                             | 0.82660E-01                             | 0.778958-01                |                            |
|                | *************************************** | *************************************** |                            |                            |
|                |   |   |                            |                            |
| GUSTINESS RAT  | IOS                                     |   |                            |                            |
|                |   |   |                            |                            |
|                |   |   |                            |                            |
| U              | 0.16713<br>0.09524                      | 0.10017<br>0.06449                      | 0.09524                    | 0.07464                    |
| ŭ              | 0.04350                                 | 0.06444                                 | 0.06436<br>0.04259         | 0.03864<br>0.02126         |
| •              | 0.04330                                 | 0.04101                                 | 0.04237                    | 0.02120                    |
|                |   |   |                            |                            |
| COVARIANCES    |   |   |                            |                            |
|                |   |   |                            |                            |
| U,V            | -0.36067E-01                            | 0.10344E-02                             | 0.10847E-02                | -0.23880E-02               |
| U, W           | -0.11760E-01                            | -0.15645E-01                            | -0.15940E-01               | -0.78294E-02               |
| U,T            | 0.60693E-01                             | 0.17002E-01                             | 0.14851E-01                | 0.11292E-01                |
| V, W           | -0.32620E-02                            | -0.11604E-02                            | -0.10380E-02               | 0.24305E-03                |
| V, T           | -0.76327E-02                            | 0.62002E-03                             | 0.51139E-03                | -0.53481E-03               |
| WeT            | -0.39302E-02                            | -0.41410E-02                            | -0.42070E-02               | -0.17190E-02               |
|                |   |   |                            |                            |
|                |   |   |                            |                            |
| WE             | -0.85078E-03                            | -0.69991E-03                            | -0.78293E-03               |                            |
|                |   |   |                            |                            |
| NORMALIZED CON | VARIANCES .                             |   |                            |                            |
|                |   |   |                            |                            |
|                | 0 31054                                 | 0.01545                                 | 0.01707                    | 0.0300/                    |
| U•A            | -0.21854                                | 0.01545                                 | 0.01707                    | -0.07986                   |
| U.W<br>U.T     | -0.15602<br>0.50896                     | -0.36026<br>0.60485                     | -0.37905<br>0.60367        | -0.47591<br>0.71434        |
| V.W            | -0.07595                                | -0.04151                                | -0.03653                   | 0.02854                    |
| v. T           | -0.11233                                | 0.03426                                 | 0.03074                    | -0.06536                   |
| W. T           | -0-12664                                | -0.35290                                | -0.38215                   | -0-38187                   |

RUN NO. BOA 16M 11- 1-62 2215-2315 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

#### NORMALIZED COSPECTRUM COVARIANCE

|     |          | ••••    |         |                   |                   |                   |
|-----|----------|---------|---------|-------------------|-------------------|-------------------|
| M   | U.V      | U,W     | U.T     | V.W               | V,T               | N.T               |
|     | 0.63541  | 0.42053 | 0.24613 | 0.28423<br>10E-01 | 0.16636<br>10E-01 | 0.11010<br>10E-01 |
|     | 10E-01   | 10E-01  | 10E-01  |                   | 105-01            | 101-01            |
| 0   | .017176  | 378813  | .603681 | 036434            | .030832           | 382022            |
| 1   | .005945  | 313676  | .540522 | 018394            | .019277           | 281615            |
| 2   | 007273   | 215723  | .436144 | .005538           | 009161            | 159280            |
| 3   | 015677   | 138915  | .339186 | .019974           | 030848            | 087596            |
| 4   | 026278   | 090467  | .255346 | .026689           | 042418            | 038593            |
| 5   | 025997   | 055328  | .179771 | .011252           | 040710            | 006061            |
| 6   | 007121   | 012682  | .112061 | .004283           | 022145            | .017303           |
| 7   | .002038  | .026547 | .057702 | .016867           | 006022            | .038208           |
| · 8 | 005938   | .062469 | .008427 | .028609           | .001894           | .055845           |
| ğ   | 012790   | .092647 | 036408  | .021113           | .000036           | .071173           |
| 10  | 005398   | .103134 | 076384  | .020553           | 004738            | .086787           |
| 11  | 000270   | .094707 | 104319  | .017166           | 006241            | .092890           |
| 12  | 001442   | .092974 | 121142  | .010811           | 003694            | .090452           |
| 13  | 009755   | .082364 | 126878  | .015337           | 001765            | .079916           |
|     |          |         | 126281  | .021704           | .013273           | .064191           |
| 14  | 013432   | .060703 | 120201  | .021104           |                   | -1.0%             |
| 15  | 010375   | .045005 | 128475  | .011030           | .022419           | .042487           |
| 16  | 014365   | .044898 | 133166  | 012057            | .023320           | .029472           |
| 17  | 017135   | .037900 | 135989  | 026699            | .007938           | .029797           |
| 10  | 015747   | .030330 | 138117  | 033559            | 008575            | .032840           |
| 19  | 003880   | .027093 | 143319  | 037645            | .002991           | .022075           |
| 19  | 003660   | .021073 |         |                   |                   |                   |
| 20  | .013490  | .036575 | 151215  | 035261            | .013618           | .007387           |
| 21  | .026122  | .042570 | 150154  | 022331            | .011934           | .006076           |
| 22  | .039176  | .036949 | 148847  | 022093            | .022183           | .013332           |
| 23  | .044336  | .030050 | 149463  | 019198            | .025477           | .023859           |
| 24  | .040887  | 025984  | 145156  | 009454            | .019205           | .032721           |
| 25  | .040753  | .029813 | 141406  | 004309            | .019765           | .034415           |
| 26  | .025985  | .033726 | 132529  | .012427           | .013957           | .031961           |
| 27  | .012334  | .037212 | 123331  | .018131           | 006312            | .014256           |
| 28  | 000567   | .039454 | 113031  | .010762           | 021068            | 002329            |
| 29  | 013966   | .042786 | 097760  | .002105           | 019205            | 010200            |
| 30  | - 020454 | .036841 | 085770  | 005872            | 010244            | 010684            |
| 30  | 020456   |         |         |                   |                   |                   |
| 31  | 014716   | .029377 | 071203  | 010704            | 004500            | 012279            |
| 32  | 006759   | .018790 | 046713  | 019834            | .003272           | 006287            |
| 33  | 000520   | 000759  | 012356  | 023074            | .000482           | 013223            |
| 34  | .008263  | 010481  | .011816 | 019235            | .005758           | 025307            |
| 35  | .017138  | 003109  | .020038 | 020769            | .009215           | 025109            |
| 36  | .012833  | 004344  | .018904 | 020914            | .006436           | 020960            |
| 37  | .005723  | 003274  | .009251 | 003092            | .011933           | 001256            |
|     |          |         |         | .009717           | .021033           | .007937           |
| 38  | .001128  | 006521  | .005454 |                   | .020562           | .000112           |
| 39  | 008676   | 008421  | .007439 | 001795            | .020362           | .000112           |
| 40  | 011353   | 001953  | .013590 | 021084            | .011966           | 005105            |
| 41  | 014907   | 007972  | .011964 | 014114            | 003310            | 001329            |
| 42  | 019503   | 009609  | .010138 | .008958           | 023105            | .006131           |
| 43  | 021637   | 005105  | .011519 | .033158           | 030968            | 000141            |
| 44  | 012901   | .003103 | .013802 | .042175           | 031385            | .001065           |
| 45  | 005314   | .011967 | .019908 | .036385           | 028976            | .009636           |
| 46  | .000393  | .022133 | .031394 | .022039           | 019241            | .013198           |
| 47  | 007296   | .025362 | .045466 | .018973           | 008562            | .008681           |
|     |          |         |         |                   |                   |                   |
| 48  | 018916   | .016070 | .052025 | .010312           | 006333            | .000694           |
| 49  | 029640   | .006195 | .058662 | .001996           | 012138            | .000742           |
| 50  | 020595   | 006301  | .061342 | 008979            | 013879            | .002500           |
| 51  | 009931   | 019318  | .058250 | 019940            | 010970            | 002780            |
| 52  | 000332   | 027008  | .056275 | 014812            | 005806            | 004297            |
| 53  | .008449  | 034085  | .054115 | 011268            | .003723           | 010250            |
| 54  | .025243  | 031701  | .049557 | 009461            | .010337           | 014451            |
| 55  | .038749  | 039002  | .033450 | 003881            | .015924           | 010934            |
| 56  | .045907  | 041113  | .015075 | 001709            | .035938           | 007620            |
| 57  | . 036657 | 044646  | .006191 | .001514           | .038321           | 006689            |
| 58  | .025529  | 034048  | 004198  | .004141           | .017989           | 007655            |
| 59  | .020132  | 016827  | 014590  | 006238            | .004868           | 011822            |
|     |          |         |         |                   |                   |                   |
| 60  | .005240  | 007975  | 018154  | .002840           | 003397            | 009410            |

RUN NO. 80A 16M 11- 1-62 2215-2315 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| MUKHALIZED | QUADRATORE         | CUVARIANCE         |                    |                    |                    |                    |
|------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| H          | U,V                | U, W               | U,T                | V, W               | V, T               | W. T               |
|            | 0 43841            | 0 42053            | 0 24412            | 0 40433            | 0 14424            | 0.11610            |
|            | 0.63541<br>10E-01  | 0.42053<br>10E-01  | 0.24613<br>10E-01  | 0:28423<br>10E-01  | 0.16636<br>10E-01  | 0.11610<br>10E-01  |
| 1          | 002702             | 030335             | .042616            | 009451             | 008982             | 010898             |
| 2          | .005930            | 033009             | .066394            | 004147             | 017352             | 028852             |
| 3          | .015256            | 026641             | .077244            | 004666             | 022953             | 035496             |
| 4          | .016763            | 026629             | .079035            | 008317             | 020776             | 034648             |
| 5          | .014207            | 017516             | .069469            | 013012             | 007345             | 030090             |
| 6          | .006408            | 010016             | .058817            | 021626             | .014486            | 027644             |
| 7          | 007688             | .000578            | .053316            | 040217             | .027236            | 030447             |
| 8          | 019080             | .006820            | .051295            | 039243             | .026903            | 028192             |
| 10         | 031783<br>039836   | .003949<br>.004125 | .046555<br>.046013 | 030063<br>020242   | .031819<br>.041826 | 029844<br>026572   |
| 11         | 055073             | .000450            | ,045025            | 023675             | .048598            | 019948             |
| 12         | 064665             | 003107             | .044253            | 035783             | .037819            | 015207             |
| 13         | 064954             | 004539             | .042063            | 037838             | .026561            | 005583             |
| 14         | 062558             | 010810             | .040205            | 041183             | .021307            | 004274             |
| 15         | 050616             | 025062             | .035039            | 031867             | .016190            | .007893            |
| 16         | 040094<br>038772   | 020393             | .025869            | 017976<br>005230   | .012800<br>.006922 | .012199<br>.005476 |
| 17         |                    | 005474<br>.001065  | .015610            | 005046             | .006149            | 004867             |
| 18<br>19   | 044821<br>042467   | .006800            | .004723            | 004116             | 001425             | 000539             |
| 20         | 023802             | .020521            | .000786            | 001861             | 011012             | 010779             |
| 21         | 001825             | .034240            | 004719             | .004023            | 023264             | 012298             |
| 22         | .016461            | .043132            | 003817             | .023666            | 036669             | 024185             |
| 23         | .025727            | .058194            | .000270            | .035273            | 043271             | 043074             |
| 24         | .036528            | .066170            | .000249            | .026619            | 041362             | 053539             |
| 25         | .043301            | .065580            | .001989            | .024737            | 035597             | 059333             |
| 26         | .034791            | .062356            | .001821            | .022839            | 021992             | 057096             |
| 27         | .028676            | .056079            | 004858             | .002528            | .001766            | 056000             |
| 28         | .023475            | .038226            | 005967             | 021393             | .026451            | 043559             |
| 29         | .011601            | .026709            | 003853             | 031435             | .049413            | 018772             |
| 30         | .004310            | .018688            | 003664             | 017530             | .052663            | 009836             |
| 31         | 011976             | .007589            | .001789            | 020290             | .040263            | 007698             |
| 32         | 027666             | 006458             | .003838            | 014931             | .021010            | 005390             |
| 33         | 021060             | 026663             | .003245            | 002549             | .013631            | .008711            |
| 34         | 008634             | 043551             | .005012            | .013705            | .011450            | .019097            |
| 35         | 000065             | 041671             | 000190             | .016749            | .011975            | .028294            |
| 36         | .009662            | 021280             | 007126             | .015947            | .013930            | .032928            |
| 37         | .026295            | 016587             | 018367             | .026215            | .016704            | .032994            |
| 38         | .036913            | 022922             | 026217             | .023563            | .010475            | .033111            |
| 39         | .032746            | 012597             | 047636             | .035843            | 004829             | .038268            |
| 40         | .033501            | -005545            | 060595             | .035389            | 010806             | .038741            |
| 41         | .032944            | .014218            | 054172             | .028959            | 008712             | .027937            |
| 42         | .033352            | .010830            | 038678             | .019495            | 004158             | .017895            |
| 43         | .025602            | 004962             | 025811             | .015681            | 203928             | .015389            |
| 44         | .033861<br>.042020 | 004671<br>007530   | 020403<br>007739   | .018479<br>.004357 | .001086<br>001924  | .011500<br>.005252 |
| 46         | .031228            | 016135             | 003475             | 000256             | 015265             | 002519             |
| 47         | .030475            | 024922             | 006866             | .009119            | 028001             | .000457            |
| 48         | .036020            | 023115             | 014378             | .011710            | 033049             | .009714            |
| 49         | .028507            | 025853             | 012685             | 002579             | 029271             | .011085            |
| 50         | .015401            | 044235             | ~.003999           | 016998             | 028932             | .022114            |
| 51         | .006487            | 046466             | .009986            | 020452             | 033107             | .031732            |
| 52         | 003131             | 049829             | .021230            | 010278             | 034084             | .036253            |
| 53         | 020628             | 046706             | .032247            | 015747             | 032684             | .034944            |
| 54         | 026737             | 039459             | .036286            | 004049             | 030097             | .033351            |
| 55         | 023099             | 029425             | .028320            | 002434             | 025369             | .022675            |
| 56         | 017557             | 011356             | .015202            | .000900            | 020151             | .012643            |
| 57         | 009444             | 005362             | .005458            | .006011            | 025104             | .006551            |
| 58         | 001374             | 004871             | .002502            | .007030            | 028514             | .001489            |
| 59         | .008271            | 001910             | .004377            | 001007             | 029244             | 001177             |
| 60         | .013061            | 002051             | .011846            | 021519             | 013929             | .006051            |

RUN NO. 80A 16M 11- 1-62 2215-2315 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| M        | U                  | ٧                  | W                      | T                  |
|----------|--------------------|--------------------|------------------------|--------------------|
|          | 0.94012            | 0.42947            |                        |                    |
|          | 10E-01             | 10E-01             | 0.18611<br>10E-01      | 0.64439<br>10E-02  |
| 0        | 1.000000           | 1 000000           |                        |                    |
| 1        | .806573            | 1.000000           | 1.000000               | 1.000000           |
| 2        | -594484            | -689746            | - 585060               | .802315            |
| 3        | .437633            | .368848            | -231638                | . 559749           |
| 4        | -313590            | •192945<br>•069406 | .065736                | .391478            |
| 5        | •202028            |                    | 004654                 | -272428            |
| 6        | •113800            | 017111             | 034028                 | .179026            |
| 7        | .048134            | 051319             | 065139                 | .103171            |
| 8        | 018631             | 073996             | 099304                 | .053206            |
| 9        | 064852             | 099213<br>122247   | 121628                 | .005782            |
| 10       |                    | *******            | 118432                 | 035628             |
| ii       | 106977             | 131431             | 134243                 | - 077100           |
| 12       | 133975             | 128786             | 122361                 | 077199<br>116735   |
| 13       | 151649             | 115648             | 091635                 | 148508             |
| 14       | 175415<br>189084   | 099784             | 065046                 | 166387             |
|          | 107064             | 093729             | 051438                 | 171091             |
| 15       | 192369             | 091004             | - 041404               |                    |
| 16       | 195750             | 087186             | 041496                 | 164776             |
| 17       | 191658             | 073279             | 053080                 | 165259             |
| 18       | 185701             | 077764             | 074998                 | 171719             |
| 19       | 188406             | 086696             | 063863<br>039095       | 176919             |
| 20       |                    |                    |                        | 179343             |
| 21       | 202679             | 081821             | 030459                 | - 100145           |
| 22       | 203991             | 097468             | 031506                 | 180165             |
| 23       | 196603             | 083396             | 034593                 | 179503<br>182228   |
| 24       | 198015             | 085518             | 040965                 | 181659             |
|          | 1 96093            | 091076             | 034150                 | 177790             |
| 25       | 189885             | 114646             |                        |                    |
| 26       | 185105             | 113340             | 042883                 | 175175             |
| 27       | 171868             | 113983             | 055150                 | 164026             |
| 28       | 152761             | 116922             | 046677                 | 144090             |
| 29       | 141765             | 105432             | -• 050420<br>-• 064402 | 117897<br>101635   |
| 30       | 120020             | 077444             |                        | *******            |
| 31       | 080881             | 077444             | 038750                 | 084556             |
| 32       | 037272             | 033283             | 007314                 | 056296             |
| 33       | •000615            | •001268            | .007689                | 035030             |
| 34       | .013476            | •026426<br>•046066 | • 036551               | 016210             |
| 35       | 4-1-27             |                    | • 046028               | 003810             |
| 36       | -014922            | -054291            | .013849                | 00114              |
| 37       | -011241            | .051504            | .008119                | -001141            |
| 38       | -018919            | -037607            | .003452                | 002385<br>016264   |
| 39       | •022850<br>•029631 | .021314            | .011256                | 027348             |
|          | -024631            | -015540            | -013630                | 027762             |
| 40       | •035170            | .027289            |                        |                    |
| 41       | .041854            | .040001            | -022622                | 021102             |
| 42       | -046359            | .055363            | - 032600               | 021396             |
| 43       | -051216            | .051235            | •021740<br>•028676     | 010933             |
| 44       | ·053456            | .048591            | • 024834               | -006467            |
| 45       | •046306            |                    | 1024034                | -014906            |
| 46       | •050470            | -044514            | -019286                | .026393            |
| 47       | ·061295            | -049739            | 000482                 | .046237            |
| 48       | •066513            | -041441            | 016895                 | .064229            |
| 49       | -068668            | -053914            | 040531                 | .070886            |
|          |                    | -059164            | 058479                 | -077176            |
| 50<br>51 | -076144            | .045958            | 064670                 |                    |
|          | -076681            | .019256            | 055591                 | .074752            |
| 52<br>53 | -070431            | 002130             | 025347                 | .071583            |
| 54       | .066326            | .007148            | .000846                | • 061207           |
|          | .057468            | .004923            | .017922                | -050505<br>-045087 |
| 55       | .046215            | 013921             |                        |                    |
| 56       | .039670            | 013921             | .025508                | -032622            |
| 57       | .036102            | .003159            | .025229                | -013965            |
| 58       | .033266            | 001569             | .010721                | 001162             |
| 59       | .009111            | 021410             | .036781<br>.052195     | 018715             |
| 60       | - 014000           |                    | • 076177               | 029421             |
| 50       | 014880             | 029585             | .040793                | 033702             |
|          |                    |                    | 171                    |                    |

RUN NO. 80A 16M 11- 1-62 2215-2315 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

|  |  |  |  | IM |  |
|--|--|--|--|----|--|
|  |  |  |  |    |  |

| 00157966002820 .009144 .0024830579300 1231285082761 .147578 .100104479571 2333009136860 .231213 .178146 .4807252 3300800136860 .231213 .178146 .4807252 4 .131422176799 .1940790144235076284 5 .316990164928 .1202000959221098113 6 .183414164354 .109633332004 .5634593 7-8255339112657 .079217126258 .2155542 12-15 .066120025886 .020346 .077749 .6603531 16-20 .122662025886 .020346 .077749 .6603631 16-20 .122662025886 .020346 .077749 .6603631 16-20 .122662025896 .00396 .010956 .0519450 22-36 .024086005512 .003796 .010956 .0519450 37-47 .022340002733 .001568 .022014 .0118070 48-60 .005214002118 .0010800034630118860  QUADRATURE SPECTRUM  K   |                 |             |               |         |           |         |                  |
|---|-----------------|-------------|---------------|---------|-----------|---------|------------------|
| 0035796002820 .009144 .00248305793006 1 -231285082761 .147578 .1100104479570 2353909138600 .231213 .1781468477552 3300480181581 .269965 .1359099797162 4 .131422176799 .1940790144235076284 5 .316990164928 .129290 .00959221098113 6 .183414164354 .109653232004 .5645693 7-8 .255339112657 .079817126258 .2155542 9-11 .269137045775 .033223 .011920 .7274451 12-15 .006120025886 .020348 .077491 .6603631 16-20 .122662 .022886 .020348 .077491 .6603631 16-20 .122662 .022586 .005512 .005857 .005465 .4443840 21-27012865015914 .006487 .045424 .0228280 374-47 .022340 .002573 .003796 .010556 .0519450 28-36 .0204086 .005512 .003796 .010556 .0519450 48-60 .005214002118 .0010800034630118860  CUADRATURE SPECTRUM  K  | K               | U, V        | U, W          | U, T    | V+W       | V.T     | N <sub>2</sub> T |
| 1 -231245 - 0082761 147578 110010 -447597 -1 2 2 -353409 - 136400 -181581 210010 -447957 -1 3 3 -300480 -181581 229965 135509 -379716 -3 3 -300480 -181581 229965 135509 -379716 -3 3 -300480 -186428 129200 -005922 -109811 -3 5 316990 -164928 129200 -005922 -109811 -3 5 -316391 -12657 079817 -126253 215554 -2 2 109811 -3 6 -3 10983 -126253 -125534 -2 2 109811 -3 6 -3 10983 -126253 -126253 -125534 -2 2 11215 066120 -025886 077491 -126253 215554 -2 2 1215 066120 -025886 070348 -077491 -660365 -1 1 1 2 2 2 2 0 -05586 0 -005552 003796 -010556 051945 -0 2 2 1 -27 -012485 -015914 -006487 -055424 -022828 -0 2 2 1 -27 -012485 -015914 -006487 -055424 -022828 -0 2 2 -3 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0   |                 | 10E-03      | 10E-02        | 10E-02  | 10E-03    | 10E-04  | 10E-03           |
| 1 -231265 - 082761 147578 100000 - 0.001930 | 0               | 035796      | 002820        | 000144  | 0024.62   |         |                  |
| 2353909138860 .231213 .1781464072752 3300480181581 .255965 .135906072752 4 .131422176799 .1940790144235076284 5 .31699164928 .1292900959221098112 5 .31699164928 .1292900959221098112 6 .18341164354 .10965323204 .5634592 7-8255339112657 .079817126258 .2155542 9-11 .2691370487175 .033223 .011920 .7274451 12-15 .066120025886 .020348077491 .6603631 16-20 .1226620226302 .012059 .056456 .4443840 21-27012485015914 .006487055424 .0228280 23-36 .024086005552 .003796 .010955 .0519450 23-36 .024086005552 .003796 .010956 .0519450 48-60 .005214002118 .0010800034630118860  QUADRATURE SPECTRUM  K   | 1               |             |               |         |           |         | 004829           |
| 3 -300480 -181581 269965 1135909 -79716 -23 4 -131422 -176799 194079 -101423 -507628 -4 5 -316990 -164928 122200 -095922 -100811 -3 6 -183414 -164324 109653 -232004 563459 -3 7-8 -255339 -112657 .079817 -128258 215534 -2 9-11 269137 -045775 .033223 .011920 727445 -1 12-15 .066120 -025866 .020348 .07749  .660363 -1 16-20 .122662 -026302 .012059 -056456 .44384 -0 21-27 -012485 -015914 .006487 -045424 .022828 -0 21-27 -012485 -015914 .006487 -045424 .022828 -0 21-27 -012485 -00552 .003796 .010956 .051945 -0 22-337-47 .022340 -002733 .001568 -022014 .011807 -0 48-60 .005214002118 .0010800034630118860  QUADRATURE SPECTRUM  K   | 2               |             |               |         |           |         | 106066           |
| 4 .131422 -176799 .1940790144235076283 5 .316990164928 .1292000959221098113 6 .183414164354 .109653232006 .5634593 7-8255339112657 .079817162288 .2155543 9-11 .269137045775 .079817162288 .2155543 12-15 .066120025886 .020348077491 .6603631 16-20 .122662026302 .012059055455 .4443840 21-27012485015914 .006487045424 .0228280 23-36 .024086005514 .006487045424 .0228280 23-36 .02408600552 .003796 .010956 .0519450 28-36 .02408600552 .003796 .010956 .0519450 48-6C .005214002118 .0010800034630118070 48-6C .005214002118 .0010800034630118070  QUADRATURE SPECTRUM  K   |                 |             |               |         |           |         | 209935           |
| 5   |                 |             |               |         |           |         | 362993           |
| 6   |                 |             |               | -194079 | 014423    | 507628  | 416767           |
| 7-8   |                 |             |               |         |           |         | 378292           |
| 9-11  |                 |             |               |         |           |         | 358084           |
| 12-15   |                 |             |               |         |           |         | 286367           |
| 16-20   |                 |             |               |         |           |         | 125992<br>114549 |
| 21-27 -012485 -015914   | 16-20           | . 122662    | - 024303      |         | 3553      |         |                  |
| 28-36   |                 |             |               |         |           | •444384 | 086507           |
| 37-47   |                 |             |               |         |           | .022828 | 055135           |
| QUADRATURE SPECTRUM  K  |                 |             |               |         |           | .051945 | 035109           |
| QUADRATURE SPECTRUM  K  |                 |             |               |         | 022014    | .011807 | 021514           |
| 10E-03  | 4000            | .005214     | 002118        | .001080 | 003463    | 011886  | 009498           |
| 10E-03  |                 |             |               |         |           |         |                  |
| 10E-03 10E-03 10E-03 10E-03 10E-03 10E-03 10I  1  | QUADRATU        | RE SPECTRUM |               |         |           |         |                  |
| 10E-03 10E-03 10E-03 10E-03 10E-03 10E-03 10I  1  | of the state of | II.V        | 11 14         |         |           |         |                  |
| 1   |                 | 0,1         | U , W         | U• 1    | V,W       | V. T    | W.T              |
| 1   |                 | 105-03      | 105-03        | 105.00  |           |         |                  |
| 2958623   |                 | 100-03      | 105-03        | 105-03  | 10E-03    | 10E-03  | 10E-03           |
| 3 - 835621 - 352884   |                 |             |               | -310352 | 137696    | .105162 | 146342           |
| 3835621352884   |                 |             |               | .462584 | 274073    |         | 129067           |
| 7308471487383 .362813219624 .168206 .00 5 .314349047209 .340225163571 .07766211 6 .965287 .327985 .177647 .07437612789615 7 -8 .378554205012 .134321 .10966114299600 9-11 .119572216042 .15197300789505802101 12-15118476075419 .073592 .02634601290401 16-20012318046383 .03196302991401117700 21-27035896038306 .005147012279 .021021 .00 228-36022657031217 .007974009015007620 .00 37-47012493013437 .003565007181 .001788 .00 48-60 .002096 .005878000658003950000824 .00  POWER SPECTRUM  K U V W  10E-01 10E-02 10E-02 10E 0 .004529 .005878000658003950000824 .00  POWER SPECTRUM  K U V W  10E-01 30E-02 10E-02 10  |                 |             |               | .465452 |           |         | 027004           |
| 10E-01   10E-02   10E-02   10E-02   10E-02   10E-01   10E-01   10E-02   10E-02   10E-02   118972   -276310   -07661   -07754   -077865   -077866   -077866   -0778681   -078865   -07886  | 115             |             |               | .362813 | 219624    |         | .002552          |
| 7-8   | ,               | . 314349    | 047209        | -340225 | 163571    |         | 114130           |
| 7-8   | 6               | . 965287    | - 327985      | .177647 | 074374    | 107004  |                  |
| 9-11  | 7-8             |             |               |         |           |         | 150217           |
| 12-15118476075419 .073592 .02634601290401 16-20012318046383 .03196302991401117700 21-27035896038306 .005147012279 .021021 .00 28-36022657031217 .007974009015007620 .00 37-47012493013437 .003565007181 .001788 .00 48-60 .002096 .005878000658003950000824 .00  POMER SPECTRUM  K U V W W  10E-01 10E-02 10E-02 10E- 0 .004529 .006516 .002613 .04 1 .072845 .141441 .042300 .53 2 .118972 .276310 .071811 .776 3 .143189 .375224 .107554 .89 4 .104112 .302979 .107940 .685 5 .072203 .264899 .104033 .486 6 .063887 .299501 .115789 .386 7-8 .048374 .261767 .101721 .327 9-11 .026711 .174950 .076081 .186 16-20 .010731 .091230 .076081 .186 16-20 .010731 .091230 .051944 .164 16-20 .010731 .091230 .055917 .086 28-36 .005332 .044070 .023347 .038 37-47 .003264 .027516 .017775 .038   | 9-11            |             |               |         |           |         | 005745           |
| 16-20012318046383 .03196302991401117700 21-27035896038306 .005147012279 .021021 .00 28-36022657031217 .007974009015007620 .00 37-47012493013437 .003565007181 .001788 .00 48-60 .002096 .005878000658003950000824 .00  POHER SPECTRUM  K U V W W  10E-01 10E-02 10E-02 10E-02 0 .004529 .006516 .002613 .04 1 .072845 .141441 .042300 .53 2 .118972 .276310 .071811 .777 3 .143189 .375224 .107554 .89 4 .104112 .302979 .107940 .688 5 .072203 .264899 .104033 .486 6 .063887 .299501 .115789 .388 7-8 .048374 .261767 .101721 .322 9-11 .026711 .174950 .076081 .186 10E-00 .010731 .091230 .051944 .146 16-20 .010731 .091230 .055399 .036767 .006 28-36 .005332 .044070 .023347 .038 28-36 .005332 .044070 .023347 .038 27-47 .003264 .027516 .017775 .006  | 12-15           |             |               |         |           |         | 012009           |
| 21-27035896038306 .005147012279 .021021 .0028-36022657031217 .007974009015007620 .003747012493013437 .003565007181 .001788 .0048-60 .002096 .005878000658007181 .001788 .000  POMER SPECTRUM  K U V W W  10E-01 10E-02 10E-02 10E-02  0 .004529 .006516 .002613 .04414  .042300 .53414  .044310 .53414  .044310 .53414  .044310 .53414  .044310 .53414  .044310 .53414  .044310 .53414  .044310 .53414  .044310 .53414  .044310 .53414  .044310 .071811 .7774  .044318  .375224 .107554 .89414  .104112 .302979 .107940 .6681  .06814  .104112 .302979 .107940 .6681  .048374 .261767 .101721 .3221  .048374 .261767 .101721 .3221  .048374 .261767 .101721 .3221  .048374 .261767 .101721 .3221  .048374 .261767 .101721 .3221  .051944 .1481  .14814  .091230 .050917 .08612-17 .007381 .091230 .050917 .08612-17 .007381 .091230 .050917 .08612-17 .007381 .091230 .050917 .08612-17 .007381 .095339 .036767 .0060 .005332 .044070 .023347 .03848-60 .025516 .017775 .020  | 16-20           |             |               |         |           |         | 016085           |
| 28-36022657031217 .007974009015007620 .000 37-47012493013437 .003565007181 .001788 .000 48-60 .002096 .005878000658003950000824 .000  POMER SPECTRUM  K U V W W   10E-01 10E-02 10E-02 10E-02  0 .004529 .006516 .002613 .044 1 .072845 .141441 .042300 .534 2 .118972 .276310 .071811 .777 3 .143189 .375224 .107554 .894 4 .104112 .302979 .107940 .688 5 .072203 .264899 .104033 .486 6 .063887 .299501 .115789 .386 7-8 .048374 .261767 .101721 .325 9-11 .026711 .174950 .076081 .186 12-15 .017466 .122532 .051944 .146 16-20 .010731 .091230 .050917 .086 16-20 .010731 .091230 .050917 .086 28-36 .005332 .044070 .023347 .038 37-47 .003264 .027516 .017775 .026   | 21-22           |             |               |         | ********* | 011177  | 004615           |
| 37-47012493013437 .003565007181 .001788 .00 48-60 .002096 .005878000658003950000824 .00  POMER SPECTRUM  K U V W  10E-01 10E-02 10E-02 10E 0 .004529 .006516 .002613 .04 1 .072845 .141441 .042300 .53 2 .118972 .276310 .071811 .777 3 .143189 .375224 .107554 .889 4 .104112 .302979 .107940 .689 5 .072203 .264899 .104033 .486 6 .063887 .299501 .115789 .386 7-8 .048374 .261767 .101721 .325 7-8 .048374 .261767 .101721 .325 9-11 .026711 .174950 .076081 .186 12-15 .017466 .122532 .051944 .148 16-20 .010731 .091230 .050917 .086 16-20 .010731 .091230 .050917 .086 16-20 .010731 .091230 .050917 .086 16-20 .003264 .027516 .017775 .026 48-60 .003264 .027516 .017775 .026   |                 |             |               | .005147 | 012279    | .021021 | .003338          |
| ## 10E-01   |                 |             |               | .007974 | 009015    |         | .003777          |
| POWER SPECTRUM  K U V W  10E-01 10E-02 10E-02 10E-  0   |                 |             |               | .003565 | 007181    |         | .002953          |
| K     U     V     W       10E-01     10E-02     10E-02     10E-02       0     .004529     .006516     .002613     .04       1     .072845     .141441     .042300     .53       2     .118972     .276310     .071811     .77       3     .143189     .375224     .107554     .89       4     .104112     .302979     .107940     .68       5     .072203     .264899     .104033     .480       6     .063887     .299501     .115789     .38       7-8     .048374     .261767     .101721     .325       9-11     .026711     .174950     .076081     .18       12-15     .017466     .122532     .051944     .146       16-20     .010731     .091230     .050917     .086       21-27     .007381     .055399     .036767     .060       28-36     .005332     .044070     .02347     .038       37-47     .003264     .027516     .017775     .020       48-60     .002643     .027516     .017775     .020   | 48-80           | .002096     | .005878       | 000658  | 003950    |         | .001331          |
| 10E-01 10E-02 10E-02 10E-02 10E-00  | POWER SPE       | CTRUM       |               |         |           |         |                  |
| 10E-01 10E-02 10E-02 10E-02 10E-00  | ĸ               |             |               |         |           |         |                  |
| 0 .004529 .006516 .002613 .04 1 .072845 .141441 .042300 .53 2 .118972 .276310 .071811 .77 3 .143189 .375224 .107554 .89 4 .104112 .302979 .107940 .68 5 .072203 .264899 .104033 .48 6 .063887 .299501 .115789 .38 7-8 .048374 .261767 .101721 .325 9-11 .026711 .174950 .076081 .18 12-15 .017466 .122532 .051944 .14 16-20 .010731 .091230 .050917 .086 16-20 .010731 .091230 .050917 .086 16-20 .005332 .044070 .023347 .086 28-36 .005332 .044070 .023347 .038 37-47 .003264 .027516 .017775 .020  | ~               | '           | J             | ٧       | •         | •       | T                |
| 1   |                 | 10E-        | -01           | 10E-02  | 10E-      | -02     | 10E-03           |
| 1   | 0               | .004        | <b>\$</b> 529 | .006516 | 001       | 2412    |                  |
| 3   | 1               |             |               |         |           |         | .041619          |
| 3   | 2               |             |               |         |           |         | • 534591         |
| 4 .104112 .302979 .107940 .689 5 .072203 .264899 .104033 .486 6 .063887 .299501 .115789 .389 7-8 .048374 .261767 .101721 .329 9-11 .026711 .174950 .076081 .186 12-15 .017466 .122532 .051944 .146 16-20 .010731 .091230 .050917 .086 21-27 .007381 .055399 .036767 .060 28-36 .005332 .044070 .023347 .038 37-47 .003264 .027516 .017775 .020  | 3               |             |               |         |           |         | .776736          |
| 5 .072203 .264899 .104033 .486<br>6 .063887 .299501 .115789 .385<br>7-8 .048374 .261767 .101721 .325<br>9-11 .026711 .174950 .076081 .186<br>12-15 .017466 .122532 .051944 .146<br>16-20 .010731 .091230 .050917 .086<br>21-27 .007381 .055399 .036767 .060<br>28-36 .005332 .044070 .023347 .038<br>37-47 .003264 .027516 .017775 .020   | 4               | .104        | 112           |         |           |         | .895562          |
| 6 .063887 .299501 .115789 .389 7-8 .048374 .261767 .101721 .329 9-11 .026711 .174950 .076081 .186 12-15 .017466 .122532 .051944 .148 16-20 .010731 .091230 .050917 .086 21-27 .007381 .055399 .036767 .060 28-36 .005332 .044070 .023347 .038 37-47 .003264 .027516 .017775 .020  |                 |             |               | .502717 | .107      | 940     | .685429          |
| 7-8   |                 |             |               |         | .104      | 033     | .480840          |
| 9-11 .026711 .174950 .076081 .186<br>12-15 .017466 .122532 .051944 .146<br>16-20 .010731 .091230 .050917 .086<br>21-27 .007381 .055399 .036767 .060<br>28-36 .005332 .044070 .023347 .038<br>37-47 .003264 .027516 .017775 .020   |                 |             |               |         | -115      | 789     | . 385601         |
| 9-11 .026711 .174950 .076081 .186<br>12-15 .017466 .122532 .051944 .148<br>16-20 .010731 .091230 .050917 .086<br>21-27 .007381 .055399 .036767 .060<br>28-36 .005332 .044070 .023347 .038<br>37-47 .003264 .027516 .017775 .020   |                 |             |               |         | .101      | 721     | .325011          |
| 12-15   |                 |             |               | -174950 |           |         | .186231          |
| 21-27 .007381 .055399 .036767 .066<br>28-36 .005332 .044070 .023347 .038<br>37-47 .003264 .027516 .017775 .020  | 14-12           | -017        | 466           | -122532 |           |         | -148011          |
| 21-27 .007381 .055399 .036767 .060<br>28-36 .005332 .044070 .023347 .038<br>37-47 .003264 .027516 .017775 .020  |                 | .010        | 731           | .091230 | . 050     | 917     | 00/575           |
| 28-36 .005332 .044070 .023347 .038<br>37-47 .003264 .027516 .017775 .020  |                 | .007        | 381           |         |           |         | .086575          |
| 37-47 .003264 .027516 .017775 .020  |                 |             |               |         |           |         | .060198          |
| 48-60 .002543 .015045 .020  |                 |             |               |         |           |         | -038012          |
| .013  | 48-60           |             |               |         |           |         | • 020902         |
|   |                 |             |               |         | •012      | 4 70    | .013744          |

RUN NO. 80A 16M 11- 1-62 2215-2315 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

# NORMALIZED COSPECTRUM COVARIANCE

| M              | U,V               | U, W             | U, T               | V.W                                     | V,T              | W.T              |
|----------------|-------------------|------------------|--------------------|---|------------------|------------------|
|                | 0.20015           | 0.16452          | 0.15819            | 0.85108                                 | 0.81836          | 0.45007          |
|                | 0.29915<br>10E-01 | 10E-01           | 10E-01             | 10E-02                                  | 10E-02           | 10E-02           |
|                | 102-01            | 101-01           | 101-01             | 101-02                                  | 100 02           | 101 01           |
| 0              | 079829            | 475888           | .713809            | .028558                                 | 065352           | 381945           |
| ĭ              | 052938            | .080597          | .160524            | 005854                                  | 022452           | .110847          |
| 2              | 032257            | 019964           | 007862             | 024107                                  | 018451           | 011247           |
| 3              | 025165            | .083696          | 059554             | 040554                                  | 004375           | .008354          |
| 4              | 046292            | .075990          | 077209             | .006246                                 | 025698           | .054979          |
|                |                   |                  |                    |   |                  |                  |
| 5              | .029048           | 077185           | .065150            | 023888                                  | .011362          | 070128           |
| 6              | .018394           | .038510          | 063431             | 004023                                  | .039258          | .045746          |
| 7              | .040729           | 078245           | .011361            | .009653                                 | .013944          | 084862           |
| 8              | .063125           | 048602           | 007316             | 034372                                  | .084950          | 037504           |
| 9              | 045852            | .046276          | 103835             | .013062                                 | 008798           | 016950           |
| 10             | 032419            | .015948          | 164553             | .026674                                 | .009819          | .040078          |
| 11             | 061873            | .098328          | 106529             | .110542                                 | 028341           | .064107          |
| 12             | 123494            | .038352          | 010004             | 030990                                  | .064035          | 006590           |
| 13             | .112202           | .071275          | 022126             | 153366                                  | .065183          | .088096          |
| 14             | 017464            | 052235           | .086031            | .022005                                 | 085198           | 109137           |
| •              |                   |                  |                    | *************************************** |                  |                  |
| 15             | .024128           | 010423           | .044130            | .054841                                 | 003520           | 027901           |
| 16             | .000191           | 062166           | .066824            | .019654                                 | 023494           | 029276           |
| 17             | .022774           | 003680           | .065655            | 009872                                  | .012362          | 002987           |
| 18             | 007662            | 055301           | .084933            | .007267                                 | 044924           | .024954          |
| 19             | 087118            | 015721           | .143812            | .026045                                 | 071334           | .018495          |
|                |                   | -52              | - 27               |   |                  | 100              |
| 20             | .083262           | .038995          | 028491             | 046025                                  | .003694          | .066898          |
| 21             | .064110           | .028996          | 089051             | .010461                                 | 007068           | .020422          |
| 22             | 026810            | .061319          | 089785             | .092943                                 | 002106           | .038765          |
| 23<br>24       | .070139<br>025557 | .023768          | 007791<br>.012953  | .011529<br>.079145                      | .021021          | 026836           |
| 4              | 025551            | •000310          | .012933            | •014142                                 | 005659           | 015705           |
| 25             | .072278           | .012599          | .027927            | 073897                                  | .056622          | .020190          |
| 26             | 012444            | 075507           | 021572             | 007898                                  | .074588          | .003208          |
| 27             | 033260            | .108354          | 139783             | 047520                                  | .018895          | .131974          |
| 28             | 017749            | 071325           | 097778             | .075407                                 | 036930           | 014058           |
| 29             | 034027            | .069350          | 118567             | 040546                                  | .022576          | .020834          |
|                |                   |                  |                    |   |                  |                  |
| 30             | 073905            | 034003           | .023690            | .014636                                 | .000656          | 036006           |
|                |                   |                  |                    |   |                  |                  |
|                |                   |                  |                    |   |                  |                  |
| COSPECTR       | JM                |                  |                    |   |                  |                  |
|                |                   |                  |                    |   |                  |                  |
| K              | U• V              | U.W              | U,T                | V, W                                    | V,T              | W,T              |
|                |                   |                  |                    |   |                  |                  |
|                | 10E-03            | 10E-03           | 10E-03             | 10E-04                                  | 10E-03           | 10E-03           |
|                | 105-03            | 105-03           | 105-03             | 106-04                                  | 100-03           | 105-03           |
| 0              | .005209           | 022399           | .125131            | 101976                                  | .001640          | 014539           |
| i              | 376768            | 148358           | .428468            | 658511                                  | .008014          | 061622           |
| 2              | 463277            | 154531           | .435129            | 353997                                  | 029734           | 028043           |
| 3              | 404389            | 219434           | .841272            | 189576                                  | ~.116797         | 017603           |
| 4              | 253082            | 154790           | .828429            | 305498                                  | 107468           | 020102           |
|                |                   |                  |                    |   |                  |                  |
| 5              | 158215            | .052848          | .324380            | .084005                                 | 033161           | .005946          |
| 6              | 355490            | 067318           | .235424            | .555354                                 | 029498           | .011025          |
| 7              | 363077            | 447063           | •576033            | .704861                                 | 016006           | 067170           |
| 8              | .131893           | 548589           | .724159            | .203102                                 | .015683          | 118750           |
| 9-11           | .204272           | 353685           | .661611            | .146873                                 | .019029          | 042895           |
| 12-14          | _ 210516          | - 205450         | 400/46             | 073557                                  | 044544           | 051357           |
| 12-14<br>15-21 | 219518<br>069979  | 285450<br>214953 | •480648<br>•339079 | .073557<br>.299993                      | 046566           | 054322           |
| 22-30          | .007301           | 757088           | .501110            | .037129                                 | 015939<br>017614 | 074495<br>177178 |
| 22-30          | .00/301           | - 171000         | . 701110           | • 031127                                | -+011014         | 111118           |

RUN NC. 80A 16M 11- 1-62 2215-2315 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

| M          | u,v      | U,W      | U.T      | V.W      | V, T             | W.T      |
|------------|----------|----------|----------|----------|------------------|----------|
|            | 100.1    |          |          | 7001     |                  |          |
|            | 0.29915  | 0.16452  | 0.15819  | 0.85108  | 0.81836          | 0.45007  |
|            | 10E-01   | 10E-01   | 10E-01   | 10E-02   | 10E-02           | 10E-02   |
| 1          | 069505   | 022151   | .073274  | 075221   | .076138          | 055630   |
| ž          | 000450   | .055577  | .032272  | .013707  | 011195           | 040994   |
| 3          | .019184  | .010282  | .064150  | .000007  | .025319          | 088151   |
| 4          |          | 001782   | .005659  | .093290  | 024140           | .018165  |
| 5          | .101209  | 093656   | .037339  | .042687  | 031636           | :037603  |
| ,          | .033102  | 073030   | .031339  | .042651  | 031036           | .031603  |
| 6          | .013858  | 055471   | .034773  | 042146   | 016298           | -012210  |
| 7          | 029914   | 011693   | .027792  | . 030224 | .008610          | .000393  |
| ė          | 010632   | .028012  | .005602  | 027233   | .072336          | 083490   |
| 9          | .081223  | 031002   | 024985   | . 086865 | 029082           | .035674  |
| 10         | .014095  | 000034   | .014931  | 082613   | .035761          | .003529  |
|            |          |          |          |          |                  |          |
| 11         | .069458  | .011270  | 009195   | .081427  | 076168           | 002753   |
| 12         | .028653  | 037154   | -025586  | 063980   | 029697           | .025149  |
| 13         | .047278  | 032718   | .016250  | .032179  | 024831           | .022866  |
| 14         | .027140  | 020582   | .001680  | .017091  | .018442          | 016810   |
| 15         | 083653   | 008048   | .038751  | 060452   | .072749          | 018759   |
|            |          |          |          |          |                  |          |
| 16         | 019551   | 060069   | .004816  | 008831   | .014405          | • 093537 |
| 17         | .022414  | 005633   | 023668   | 001084   | 043044           | 012144   |
| 16         | . 140207 | .022283  | 015595   | .054453  | 085952           | .015707  |
| 19         | .016403  | .031773  | .018709  | 005097   | .000167          | 048488   |
| 20         | 098418   | • 050092 | .021819  | 018743   | .095274          | 046915   |
|            | 411474   | 029255   | 020740   | .039779  | .038331          | .006379  |
| 21         | 011878   |          | .020769  |          |                  |          |
| 22         | 027909   | .023690  | 010566   | 094883   | .003149          | 044061   |
| 23         | . 052348 | .051725  | -000892  | 027411   | 039688           | 011420   |
| 24         | 037660   | .027803  | .007981  | 094916   | .034365          | .015072  |
| 25         | 040877   | 026769   | 039089   | .053586  | .042116          | .048383  |
| 26         | 001415   | .029955  | 010075   | 037176   | .035783          | .000560  |
| 27         | .001077  | 019856   | .029716  | .033332  | .035891          | 011463   |
| 20         | 011014   | .031833  | .030084  | 013891   | .013522          | 077545   |
| 29         | .003457  | .030541  | .027298  | 008428   | 060150           | 035266   |
| 30         | .043380  | 095664   | 036361   | .065210  | 042904           | .077997  |
|            |          |          |          |          |                  |          |
| QUADRATURE | SPECTRUM |          |          |          |                  |          |
| K          | U.A      | U,W      | U,T      | V, W     | V. T             | W. T     |
|            | 10E-03   | 10E-03   | 10E-03   | 10E-03   | 10E-04           | 10E-04   |
| 1          | .608949  | 216044   | .214678  | .036356  | 097685           | 057019   |
| Ž          | .395713  | 167377   | .162824  | .062728  | 137639           | 113646   |
| 3          | .135511  | 038759   | .157556  | .053260  | .175162          | 358409   |
| 4          | .017969  | 015307   | .170296  | .048723  | .158489          | 348705   |
| 5          | .017133  | 064218   | .169305  | .017997  | .005039          | 118495   |
|            |          |          |          |          |                  |          |
| 6          | .103481  | .053990  | .145375  | 008855   | 087022           | 309311   |
| 7          | .253870  | .199407  | .062872  | .018610  | 195539           | 506676   |
| 8          | 022025   | .208835  | .000386  | 032382   | .462721          | 457066   |
| 9-11       | 441587   | .119415  | .095356  | 086364   | .924713          | 596129   |
| 12-14      | 328925   | 106795   | .092877  | 108109   | .147985          | .154406  |
| 15 41      | 060316   | _ ^**    | 0 204 74 | - 010335 | 444772           | 110014   |
| 15-21      | 059319   | 073912   | .029678  | 010325   | • <b>468</b> 772 | - 119816 |
| 22-30      | 176480   | 119891   | .095956  | 039643   | •440657          | 324013   |

RUN NO. 80A 16M 11- 1-62 2215-2315 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

| M              | U        | v        | W                 | r                    |
|----------------|----------|----------|-------------------|----------------------|
|                | 0.57828  | 0.15475  | 0 44907           |                      |
|                | 10E-01   | 10E-01   | 0.46807<br>10E-02 | 0.43276<br>10E-02    |
| 0              | 1.000000 | 1.000000 | 1.000000          | 1 000000             |
| 1              | .202293  | .009766  | 223685            | 1 - 000000           |
| 2              | 020464   | 012080   |                   | .279629              |
| 3              | 051865   | 073941   | .094210           | •078412              |
| 4              | 080616   | 105311   | 141894            | 024836               |
| _              |          | .103311  | 092655            | 111625               |
| 5              | -116273  | .092996  | 001230            | .020162              |
| 6              | 079295   | 020866   | 028720            | 120095               |
| 7              | 034503   | -046555  | .037748           | 024676               |
| 8              | -083281  | 036371   | . 044929          | 080908               |
| 4              | 049723   | 078352   | 012700            | 156693               |
| 10             | 102211   | .054360  | .006823           | 222977               |
| 11             | 075816   | .024768  | 095770            | 127773               |
| 12             | 069004   | 076723   | • 009984          | 032014               |
| 13             | 005412   | 145263   | 121924            | 055785               |
| 14             | .037877  | 065861   | .130966           | .110287              |
| 15             | 000419   | 045756   | 10/012            |                      |
| 16             | .082582  | •044127  | 106013            | .037051              |
| 17             | .025665  | .049381  | . 064659          | • 052480             |
| 18             | .090850  | 077300   | 079264            | -115007              |
| 19             | .155037  | 015283   | -114580           | -110870              |
|                |          | 017203   | 095294            | -197573              |
| 20             | 018104   | 051459   | .011064           | 010030               |
| 21             | 080126   | .006002  | 036813            | 075736               |
| 22             | 107508   | 052326   | 021010            | 105913               |
| 23             | 085858   | 022722   | 007305            | 037566               |
| 24             | 025326   | 078232   | -088046           | -004881              |
| 25             | .042926  | 008220   | - 044000          |                      |
| 26             | .021612  | 011362   | 046898            | 013793               |
| 27             | 125289   | .048058  | -122813<br>118230 | 036597               |
| 28             | 043310   | .085917  |                   | 152312               |
| 29             | 057531   | 019136   | .078078<br>081570 | 174790               |
| •              |          |          | 001570            | 168293               |
| 30             | .077707  | 080957   | 000319            | 061028               |
| POWER SPECTA   | lUM      |          |                   |                      |
| K              | U        | v        | W                 | T                    |
|                |          |          |                   | ·                    |
|                | 10E-02   | 10E-03   | 10E-03            | 10E-03               |
| 0              | .097370  | 10(212   |                   |                      |
| ĭ              | .332878  | .196918  | .011570           | .044313              |
| ž              | .238309  | .959548  | - 076645          | .182311              |
| 3              | .330643  | .734545  | .083532           | .216683              |
| 4              |          | .591689  | . 090457          | • 396792             |
| •              | .312728  | .394804  | .089002           | .384175              |
| 5<br>6         | -171607  | .275406  | .096246           | .189977              |
| 6              | .209177  | .403025  | . 132625          | .149470              |
| 7              | .325051  | .542660  | - 203914          | •224707              |
| 8              | .312832  | .442284  | • 220344          | • 243068             |
| 9-11           | .276315  | -665364  | • 159392          | • 243068<br>• 219521 |
| 12-14          |          |          | · • • / J 7 6     | • € 14251            |
| 12-14<br>15-21 | -297860  | .729409  | .147049           | -143470              |
| 22-30          | .171129  | .621221  | . 165815          | .123563              |
| 22-30          | .273335  | •996877  | .457125           | -178943              |
|                |          |          |                   |                      |

RUN NO. 80A 40M 11-01-62 2215-2315 EST

# GROSS STATISTICS

| CLEAR<br>Stable<br>Land | WIND SP<br>Sigma a<br>Sigma e             | 3.4 DEG                                   | WIND DIRE<br>SOLAR RAD<br>NET RADIA       |   |
|-------------------------|---|---|---|---|
|                         | WITH NO<br>RUNNING MEAN                   | WITH 301 POINT<br>RUNNING MEAN            | WITH 61 POINT<br>RUNNING MEAN             | 301 PT RUN MEAN<br>10 PT BLOCK AVG        |
| VARIANCES               |   |   |   |   |
| U<br>V                  | 0.17416E-00<br>0.95028E-01<br>0.14654E-01 | 0.51850E-01<br>0.30006E-01<br>0.14093E-01 | 0.47034E-01<br>0.28983E-01<br>0.13590E-01 | 0.24803E-01<br>0.86450E-02<br>0.29402E-02 |
| ř                       | 0.31519E-01                               | 0.58577E-02                               | 0.49548E-02                               | 0.30948E-02                               |
| E                       | 0.14192E-00                               | 0.47999E-01                               | 0.44804E-01                               |   |
| GUSTINESS RATIO         | )S  |   |   |   |
| Ų.                      | 0.08088                                   | 0.04413                                   | 0.04203                                   | 0.03052                                   |
| W                       | 0.05974<br>0.02346                        | 0.03357<br>0.02301                        | 0.03299<br>0.02259                        | 0.01802<br>0.01051                        |
| COVARIANCES             |   |   |   |   |
| U,V                     | -0.35054E-01                              | 0.60118E-02                               | 0.600B1E-02                               | 0.12458E-02                               |
| U,W<br>U,T              | -0.44746E-02<br>0.46868E-01               | -0.99247E-02<br>0.10452E-01               | -0.92878E-02<br>0.85954E-02               | -0.32752E-02                              |
| V, W                    | -0.40037E-02                              | -0.22548E-02                              | -0.17606E-02                              | 0.60970E-02<br>-0.21730E-03               |
| V,T                     | -0.18721E-01                              | 0.27128E-02                               | 0.25041E-02                               | 0.60489E-03                               |
| W+T                     | ~0.21987E-02                              | -0.30101E-02                              | -0.30186E-02                              | -0.86478E-03                              |
| WE                      | 0.13105E-03                               | 0.32792E-04                               | 0.19838E-03                               |   |
| NORMALIZED COVA         | ARIANCES                                  |   |   |   |
| U,V                     | -0.27249                                  | 0.15241                                   | 0.16273                                   | 0.08508                                   |
| U,W                     | -0.08857                                  | -0.36714                                  | -0.36737                                  | -0.38353                                  |
| U.T                     | 0.63259                                   | 0.59974                                   | 0.56305                                   | 0.69591                                   |
| V.W                     | -0.10729                                  | -0.10965                                  | -0.08871                                  | -0.04310                                  |
| V,T                     | -0.34207                                  | 0.20462                                   | 0.20896                                   | 0.11694                                   |
| W,T                     | -0.10231                                  | -0.33129                                  | -0.36786                                  | -0.28669                                  |

RUN NO. BOA 40M 11-01-62 2215-2315 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| M          | U,V                                     | U, W                                    | U.T              | V.W.               | V. T               | W, T               |
|------------|---|---|------------------|--------------------|--------------------|--------------------|
|            | 0.36912                                 | 0.25278                                 | 0.15261          | 0.19841            | 0 11070            |                    |
|            | 10E-01                                  | 10E-01                                  | 10E-01           | 10E-01             | 0.11979<br>10E-01  | 0.82034            |
| •          |   |   |                  |                    | 105-01             | 10E-02             |
| 0<br>1     | .162589                                 | 367575                                  | -563021          | 088433             | .208971            | 368047             |
| 2          | .128317                                 | 247532                                  | .478999          | 016774             | .142479            | 234121             |
| 3          | • 078493                                | 112523                                  | .338413          | .027302            | .059420            | 092823             |
| 4          | .042433                                 | 037224                                  | .221295          | • 022692           | .011971            | 023388             |
| •          | .011211                                 | -012717                                 | -138890          | -021036            | 015263             | .009821            |
| 5          | 014938                                  | .032830                                 | .084827          | 015440             |                    |                    |
| 6          | 027620                                  | .037439                                 | .052320          | -015460            | 022414             | -014804            |
| 7          | 040012                                  | .028923                                 | .022948          | •013820<br>•027075 | 026374             | .030256            |
| 8          | 024825                                  | .027157                                 | 001583           | .020537            | 042767             | .052024            |
| 9          | 004383                                  | .031407                                 | 027690           | .008290            | 035411<br>017870   | -045106<br>-042431 |
| 10         | 000414                                  |   |                  |                    |                    | .042431            |
| ii         | .003414                                 | .033858                                 | 058318           | 006844             | 017764             | .038611            |
| 12         | 003357<br>003647                        | -043142                                 | 080998           | 008489             | 033949             | .043098            |
| 13         | • 002468                                | -057129                                 | 095701           | 002410             | 036494             | .049941            |
| 14         | .000075                                 | • 058944                                | 097669           | 012454             | 025052             | .054385            |
|            | *************************************** | .041860                                 | 093331           | 010624             | 009627             | -042556            |
| 15         | 012854                                  | .039248                                 | 098976           | - 003604           | ****               |                    |
| 16         | 033889                                  | .047564                                 | 120181           | 002584<br>.005547  | 004187             | -036890            |
| 17         | 044493                                  | .045119                                 | 128111           | 000658             | -001753            | .033267            |
| 18         | 037265                                  | .031595                                 | 120748           | 011021             | 000334             | .017067            |
| 19         | 034057                                  | .027609                                 | 114156           | 003274             | 001835<br>004099   | .010140            |
| 2.0        |   |   |                  |                    | 004099             | .015399            |
| 20         | 026609                                  | .026341                                 | 099783           | 009736             | .011271            | 021411             |
| 21         | 010729                                  | .023903                                 | 086202           | 013498             | .027492            | •021411<br>•026368 |
| 22         | .000165                                 | .015659                                 | 085869           | 003335             | .019859            | .027968            |
| 23<br>24   | •002067                                 | 011623                                  | 081200           | .005124            | .015031            | .016325            |
| 24         | 002009                                  | 010645                                  | 084420           | .002322            | .019527            | .013115            |
| 25         | .002983                                 | - 000034                                |                  |                    |                    |                    |
| 26         | .006920                                 | 000034<br>.005614                       | 088450           | -000337            | -022581            | .012968            |
| 27         | .005101                                 | .019464                                 | 091219<br>082822 | ~- 002122          | .024213            | .016502            |
| 28         | .007952                                 | .006451                                 | 051852           | 004513             | •029029            | .013380            |
| 29         | .010169                                 | 019677                                  | 019955           | 002571<br>008052   | -021486            | .002463            |
|            |   |   | ,,,,,            | - • 000032         | .008835            | 013908             |
| 30         | .008088                                 | 025186                                  | 003759           | 015024             | .003373            | - 015530           |
| 31         | .005477                                 | 018443                                  | -003714          | 016859             | .005105            | 015539<br>021291   |
| 32         | •011476                                 | 018684                                  | -006382          | 023602             | .001799            | 022001             |
| 33<br>34   | -012250                                 | 020935                                  | .006984          | 005411             | 004167             | 024195             |
| <b>5</b> 4 | .000008                                 | 020035                                  | 000759           | .007183            | 010616             | 032424             |
| 35         | 009093                                  | - 012452                                |                  |                    |                    |                    |
| 36         | 012757                                  | 013452<br>004859                        | 007979           | 000497             | 019030             | 025991             |
| 37         | 009726                                  | 007086                                  | 018314           | 001819             | 028183             | 014553             |
| 38         | 004332                                  | 019816                                  | 022420<br>006573 | -001976            | 032156             | ~.005188           |
| 39         | .006984                                 | 036766                                  | .013176          | -006723            | 021143             | .002155            |
|            |   |   | 1013170          | .019126            | 003505             | 013667             |
| 40         | .013869                                 | 049172                                  | .019949          | - 008462           | .017024            | 005075             |
| 41         | .014133                                 | 038801                                  | -013369          | 002315             |                    | 025275             |
| 42         | .008620                                 | 014325                                  | .002392          | 006625             | •025274<br>•008905 | 017056<br>000932   |
| 43<br>44   | 002062                                  | .011769                                 | 010603           | 003520             | 019026             | .020710            |
| 77         | 008813                                  | •026229                                 | 016366           | -024167            | 053775             | .030653            |
| 45         | 014598                                  |   |                  |                    |                    | 1030033            |
| 46         | 021852                                  | -033874                                 | 011048           | -027812            | 066122             | -027812            |
| 47         | 034719                                  | •045292                                 | 008961           | 003514             | 052295             | .022222            |
| 48         | 042748                                  | .046314<br>.045126                      | 007895           | 017047             | 036081             | .012743            |
| 49         | 047168                                  | .033608                                 | 006038           | 013515             | 037706             | -001546            |
|            |   | •033606                                 | -007696          | -007182            | 031865             | 007144             |
| 50         | 041289                                  | .014058                                 | -029230          | -012720            | 017447             |                    |
| 51         | 036650                                  | -011708                                 | • J36946         | -012720            | 017447             | 013579             |
| 52         | 033463                                  | .017519                                 | -039568          | 009014             | 016705             | 009597             |
| 53         | 014320                                  | .006773                                 | .037655          | 022948             | 019652<br>016936   | 018294             |
| 54         | .008855                                 | .003928                                 | .026883          | 028029             | 009793             | 019567<br>022743   |
| 55         | 022541                                  |   | -1-000           |                    |                    |                    |
| 56         | •022561<br>•020787                      | -008282                                 | .007979          | 023249             | 011563             | 019079             |
| 57         | 004647                                  | .019172                                 | 013043           | 024551             | 007019             | 004059             |
| 58         | 018222                                  | <ul><li>021436</li><li>015757</li></ul> | 025058           | 001548             | 006319             | .008607            |
| 59         | 018126                                  | .015757                                 | 018506           | -017469            | .000798            | .011083            |
|            | - >                                     | -0.7501                                 | 005674           | .033795            | .000955            | -026510            |
| 60         | 004108                                  | -008559                                 | •003920          | .017602            | 012577             | A.C C.             |
|            |   |   |                  | 2 1 0 0 2          | -012877            | .039702            |

RUN NO. 80A 40M 11-01-62 2215-2315 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| M        | U,V                | U,W                | U,T                | V.W                | V, T               | ₩øT                |
|----------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|          |                    |                    |                    |                    |                    |                    |
|          | 0.36912            | 0.25278            | 0.15261<br>10E-01  | 0.19841            | 0.11979            | 0.82034            |
|          | 10E-01             | 10E-01             | 105-01             | 10E-01             | 10E-01             | 10E-02             |
| 1        | .045284            | .001923            | .053328            | .032334            | 010470             | 013457             |
| 2        | .049117            | .008538            | .053651            | .016815            | 008562             | .003922            |
| 3        | .041109            | .013505            | .038165            | 001499             | 006780             | .026985            |
| 4        | .027647            | .009918            | .034414            | 004207             | .005094            | .036714            |
| 5        | .019487            | 000634             | .044381            | 012681             | .022687            | .023284            |
| 6        | .029395            | 000919             | .050476            | 009237             | .021871            | .012705            |
| 7        | .033188            | 001690             | .054445            | 004723             | .010019            | .017592            |
| 8        | .025124            | .001587            | .059432            | 006656             | .002305            | .016186            |
| 9        | .025348            | .003936            | .059638            | 004739             | 000637             | .006395            |
| 10       | .022144            | .008091            | .054600            | .003182            | .012628            | .001218            |
| .,       | 005000             | 011340             | 040135             | 004770             | 010500             | 00/313             |
| 11<br>12 | .005909<br>012241  | .011360<br>.010470 | .048125<br>.038077 | .006739<br>.010497 | .019580<br>.015837 | .006212<br>.016713 |
| 13       | 012895             | .018346            | .035882            | .004998            | .017722            | .010846            |
| 14       | 003352             | .028767            | .038788            | 000362             | .018209            | 004496             |
| 15       | .005896            | .032267            | .044584            | .020527            | .003348            | 014621             |
|          |                    |                    |                    |                    |                    |                    |
| 16       | .008160            | .022763            | .045869            | .026350            | .005842            | 025682             |
| 17       | .008126            | .013576            | .037965            | .041864            | 001914             | 021983             |
| 18       | .015124            | .013573            | .022367            | .039952            | 015852             | 003774             |
| 19       | .023720            | .004835            | .007958            | .032996            | 023185             | ~.005104           |
| 20       | .020102            | 006490             | .000203            | .013235            | 025840             | 007781             |
| 21       | .020047            | 000623             | 006891             | 004867             | 016050             | 009919             |
| 22       | .005607            | 005032             | 011054             | 019614             | .003447            | 003630             |
| 23       | 014159             | 008036             | 006065             | 017740             | .018217            | .004799            |
| 24       | 028812             | 008992             | 000269             | 012377             | .027083            | .008655            |
| 25       | 034547             | 014014             | 001536             | 009807             | .032256            | .015683            |
| 26       | 040662             | 008849             | 004985             | .005183            | .031221            | .007081            |
| 27       | 034167             | 008192             | .001495            | .007412            | .035076            | 013714             |
| 28       | 035855             | 005155             | .002867            | 007849             | .038635            | 015161             |
| 29       | 047726             | .006408            | .000491            | 024304             | .045108            | 007819             |
| 30       | 049327             | .008853            | 010816             | 026948             | .041119            | .001387            |
|          |                    |                    |                    |                    | 000004             |                    |
| 31       | 046074             | .000295            | 022084<br>034897   | 017094             | -028896            | .013434            |
| 32<br>33 | 030736<br>010675   | .017548<br>.008410 | ~.033861           | .007591<br>.018933 | .011249<br>013119  | -001705<br>-008502 |
| 34       | .012209            | 011228             | 024792             | .023220            | 031635             | 006816             |
| 35       | . 025547           | 017050             | 013811             | .023842            | 041118             | .000425            |
|          |                    |                    |                    |                    |                    |                    |
| 36       | .029157            | 013691             | 000242             | .014262            | 042062             | .000420            |
| 37       | .031571            | 003262             | .003300            | 009079             | 031860             | .003364            |
| 38<br>39 | .032153<br>.044987 | .003275            | .001099            | 020594<br>016997   | 027217<br>032713   | .008985            |
| 40       | .045311            | .004139<br>007002  | .003605<br>.007876 | 011796             | 027236             | .012474<br>.005462 |
| . •      |                    |                    |                    |                    |                    |                    |
| 41       | .045277            | 010066             | .011468            | .015583            | 028616             | .004427            |
| 42       | .040172            | .005629            | .003606            | .019346            | 026445             | .004410            |
| 43       | .035051            | .021325            | 004124             | .014464            | 018992             | .000093            |
| 44<br>45 | .023732<br>.007105 | .024400<br>.016543 | 015981             | .002458<br>008160  | 007465<br>.002983  | 000089<br>.012941  |
| 72       | .007105            | .010343            | 025028             | 000180             | .002703            | .012741            |
| 46       | 027633             | .010125            | 029196             | 029102             | .016150            | .018706            |
| 47       | 041391             | 002230             | 024718             | 033445             | .024026            | .006254            |
| 48       | 032472             | 014891             | 019058             | 040347             | .023809            | .004380            |
| 49       | 030044             | 013990             | 014380             | 040845             | .020503            | -010078            |
| 50       | 016750             | 023561             | 005993             | 014264             | .011451            | .008623            |
| 51       | 005363             | 033167             | .011293            | .004847            | .010415            | 000105             |
| 52       | 001331             | 010169             | .015392            | .005039            | .022706            | 009627             |
| 53       | .000166            | .010290            | .008449            | .010531            | .027879            | 021284             |
| 54       | 001259             | .018473            | 006619             | .001477            | .022427            | 019629             |
| 55       | 010515             | .018916            | 019755             | .000034            | .009414            | 009960             |
| 5.4      | _ 01330/           | 002473             | 025966             | .004636            | 001972             | .002633            |
| 56<br>57 | 012294<br>002104   | .002473<br>017510  | 016691             | .004636            | 001972             | .002633            |
| 58       | .006464            | 018221             | .000372            | .021270            | 001122             | 005537             |
| 59       | .012407            | 018225             | .017725            | .027273            | 002598             | 010007             |
| 60       | .006640            | 008070             | .018118            | .028686            | 004364             | 007256             |

RUN NO. 80A 40M 11-01-62 2215-2315 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| M              | U                 | V                | W                | T                   |
|----------------|-------------------|------------------|------------------|---------------------|
|                | 0.47027           | 0.28973          | 0.13588          | 0.49526             |
|                | 10E-01            | 106-01           | 10E-01           | 10E-02              |
| 0              | 1.00000           | 1.000000         | 1.000000         | 1.000000            |
| 1              | .758439           | .610349          | .496038          | .773796             |
| 2              | .493026           | .256534          | .118832          | .499744             |
| 3              | -308713           | .088635          | 016233           | . 308999            |
| 4              | .174912           | .010532          | 076728           | .189146             |
| 5              | .089390           | 024428           | 057822           | .117824             |
| 6              | .043464           | 034776           | 034738           | .064347             |
| 7<br>8         | .011898<br>013758 | 040864<br>052507 | 050219<br>052644 | .013245<br>~.024927 |
| 9              | 039828            | 074347           | 064764           | 061556              |
| 10             | 066051            | 103772           | 053635           | 090466              |
| 11             | 089452            | 119366           | 058405           | 114012              |
| 12             | 121215            | 126698           | 097894           | 124376              |
| 13             | 137683            | 097979           | 102610           | 131957              |
| 14             | 147968            | 042612           | 069114           | 128121              |
| 15             | 161085            | 038665           | 038084           | 135674              |
| 16             | 180282            | 072373           | 035951           | 146062              |
| 17             | 195766            | 082114           | 031966           | 154441              |
| 18             | 194616            | 088688           | 034853           | 161724              |
| 19             | 189182            | 096148           | 044438           | 161337              |
| 20             | 180528            | 111201           | 060791           | 146499              |
| 21             | 167078            | 124106           | -,052430         | 132465              |
| 22             | 164140            | 109228           | 036763           | 122850              |
| 23             | 160189            | 095092           | 005948           | 114450              |
| 24             | 164626            | 080501           | 019012           | 119955              |
| 25             | 174551            | 050638           | 034796           | 121833              |
| 26             | 168488            | 035846           | 030459           | 121537              |
| 27             | 143738            | 032480           | 050928           | 109783              |
| 28             | 104213            | 031619           | 055887           | 087023              |
| 29             | 067561            | 023824           | 026537           | 065890              |
| 30             | 033774            | .006662          | 009301           | 051663              |
| 31             | .000755           | .024727          | .008694          | 035312              |
| 32             | .022186           | .029181          | .002678          | 023731              |
| 33             | .035467           | .024250          | .012676          | 014158              |
| 34             | .035499           | .018273          | .038457          | 010656              |
| 35             | .030770           | .024501          | .033063          | 012316              |
| 36             | .024166           | .034971          | .017411          | 016690              |
| 37             | .022945           | .036663          | .022690          | 021653              |
| 38             | .033446           | .026580          | .016019          | 011892              |
| 39             | .042363           | .032628          | .039532          | .001403             |
| 40             | .064513           | .058206          | .063902          | .006064             |
| 41             | .076571           | .052703          | .043030          | 011961              |
| 42             | .070903           | .035660          | .014897          | 034659              |
| 43             | .067496           | .015289          | 023534           | 052102              |
| 44             | .062616           | .001851          | 060136           | 055094              |
| 45             | .047575           | .014687          | 043765           | 040218              |
| 46             | .023683           | .017135          | 032385           | 021047              |
| 47             | .005710           | 006391           | 012385           | 005701              |
| 48             | .001460           | 034224           | .002414          | .012276             |
| 49             | .024049           | 056282           | 002604           | .027711             |
| 50             | .038992           | 062393           | 008086           | .049005             |
| 51             | -045454           | 039587           | 020214           | .050477             |
| 52             | .044333           | 015949           | 014310           | .043027             |
| 53             | .029427           | 002587           | 008678           | .024099             |
| 54             | .011056           | 003743           | 003742           | .004786             |
| 55             | 014418            | 011738           | .006442          | 013845              |
| 56             | 036178            | 012130           | 001144           | 021750              |
| 57             | 038755            | 012867           | 007919           | 013612              |
| 58<br>59       | 022483            | 003024           | .010676          | .012842             |
| 3 <del>7</del> | 011826            | 010219           | 010157           | .029123             |
| 60             | 021613            | 002483           | 023146           | .033420             |

RUN NO. 80A . 40M 11-01-62 2215-2315 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| COSPI | CTRUM |
|-------|-------|
|-------|-------|

| K          | U,V                | U.W               | U, T               | V.W                | V, T               | W. T               |
|------------|--------------------|-------------------|--------------------|--------------------|--------------------|--------------------|
|            | 10E-03             | 10E-03            | 10E-02             | 105.04             |                    |                    |
| I.E.       |                    | 100 03            | 105-02             | 10E-04             | 106-03             | 10E-03             |
| 0          | .050606            | 028989            | .005576            | .022594            | .021070            | 002744             |
| 1          | . 327392           | 183868            | .066872            | .427087            | .099898            | 03875              |
| 2          | - 322590           | 303696            | .097359            | .630159            | .031782            | 094280             |
| 3          | • 506367           | 651704            | .121967            | .581484            | .055324            | 191424             |
| 4          | • 578882           | 765010            | .102642            | .066146            | .173915            | 222161             |
| 5          | -406947<br>-298218 | 605955            | .070325            | 036332             | -214285            | 179421             |
| 7-8        | .332158            | 561717            | .053157            | 132500             | • 190695           | 175930             |
| 9-11       | .488683            | 435994            | .043929            | 831893             | • 137391           | 173194             |
| 12-15      | .155619            | 428673<br>371573  | .029232<br>.020308 | 803778<br>492876   | •123098<br>•101919 | 117771<br>111119   |
| 16-20      | .059036            | 223075            | 014014             |                    |                    |                    |
| 21-27      | .079123            | 137236            | .014016            | 571575             | .051817            | 069646             |
| 28-36      | -018312            | 093956            | .006003            | 773142             | .054652            | 064651             |
| 37-47      | .032731            | 059465            | .002716<br>.001537 | 461679             | .015800            | 029993             |
| 48-60      | .003170            | 030176            | .000585            | 471812<br>172695   | •018660<br>•005182 | 024202<br>011405   |
|            |                    |                   |                    |                    |                    |                    |
| QUADRATUR  | E SPECTRUM         |                   |                    |                    |                    |                    |
| K          | U.V                | U, M              | U.T                | V, W               | V,T                | W.T                |
|            |                    |                   |                    | •                  | .,.                | .,,,               |
|            | 10E-03             | 10E-03            | 10E-03             | 10E-03             | 10E-04             | 10E-04             |
| 1          | .016198            | .098140           | .205180            | 044175             |                    | _                  |
| 2          | .112384            | .106779           | .273734            | .064175<br>.075343 | •662831            | • 049039           |
| 3          | -406878            | .115237           | .300520            | .046445            | •613390            | .053086            |
| 4          | . 385843           | .055830           | .207517            | 008395             | • 042985           | . 262955           |
| 5          | 037051             | 039792            | .097603            | 101308             | 154230<br>.885609  | •422932<br>•442029 |
| 6          | .086701            | 082407            | .053359            | 110047             |                    |                    |
| 7-8        | . 385178           | 033432            | .023771            | 118867             | -628242            | • 446767           |
| 9-11       | .018508            | .068663           | .051476            | .031079            | 751542             | •149825            |
| 12-15      | .103355            | .011062           | .015375            | -041727            | .204257            | .038512            |
| 16-20      | .124137            | .022643           | .049267            | .043983<br>.021498 | 259294<br>247419   | .046381<br>143605  |
| 21-27      | .060494            | 015450            | 020221             |                    |                    |                    |
| 28-36      | .006821            |                   | .038331            | .040737            | .065450            | 163684             |
| 37-47      | . 029434           | 010490            | .020795            | .021655            | 006362             | 045286             |
| 48-60      | .003665            | .003266<br>004169 | .005061            | -016417            | 044567             | 029192             |
| -          |                    | .004107           | .003037            | .000457            | 012988             | 008084             |
| POWER SPEC | TRUM               |                   |                    |                    |                    |                    |
| K          | U                  | ı                 | ٧                  |                    |                    | т                  |
|            |                    |                   |                    | ·                  | •                  | •                  |
|            | 10E-               | 02                | 10E-02             | 10E-               | -03                | 10E-03             |
| 0          | .019               | 822               | .007073            | .022               | 378                | .030908            |
| 1          | .268               | 573               | .079932            | . 246              |                    | .362316            |
| 2          | .464               | 152               | -139818            | • 404              |                    | .488477            |
| 3          | -615               |                   | .215355            | .630               |                    | .575583            |
| 4          | -460               | 405               | .193743            | .628               |                    | .487057            |
| 5          | .289               |                   | -142870            | . 547              | 975                | 350050             |
| 6          | .253               | 294               | .141607            | .607               |                    | .358950            |
| 7-8        | .233               |                   | -148375            | .538               |                    | • 297011<br>349590 |
| 9-11       | .177               |                   | 105290             | .473               |                    | .249589<br>.175765 |
| 12-15      | -125               | 306               | 194735             | .500               |                    | ·175765            |
| 16-20      | .079               | 181               | .078100            | .387               | 667                |                    |
| 21-27      | .047               |                   | .051531            | .321               |                    | -089906            |
| 28-36      | -0319              | 558               | .035234            | .206               |                    | .054798            |
| 37-47      | .0226              | 578               | .023718            | .179               |                    | .029400            |
| 8-6C       | .0137              | 799               | .016285            | .104               |                    | .019639            |
|            |                    |                   |                    | • • • • •          |                    | .012262            |

RUN NO. 80A 40M 11-01-62 2215-2315 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

| M         | U.V              | U.W                | U, T               | V.W               | V.T                | W <sub>2</sub> T   |
|-----------|------------------|--------------------|--------------------|-------------------|--------------------|--------------------|
|           | 0.14651          | 0.85358            | 0.87566            | 0.50417           | 0.51720            | 0.30132            |
|           | 10E-01           | 10E-02             | 10E-02             | 10E-02            | 10E-02             | 10E-02             |
|           |                  |                    |                    |                   |                    |                    |
| 0         | .085027          | 383695             | .696274            | 043101            | .116954            | 286997             |
| 1         | 010607           | .037674            | .147843            | 025268            | 026845             | .078667            |
| 2         | 051308           | .017266            | .003685            | 030767            | .015596            | .076298            |
| 3         | 024821           | 008300             | .019256            | 063233            | .007489            | 010128             |
| 4         | 072305           | .012600            | 056930             | .033953           | 057988             | .044753            |
| 5         | 042152           | .101965            | .002887            | 041964            | 072680             | .013566            |
| 6         | 009553           | .098150            | 025135             | .020569           | .024945            | .044401            |
| 7         | 000678           | .011582            | 049519             | 000825            | 020970             | .023687            |
| 8         | .035327          | .006095            | 033622             | 015091            | 003317             | 032311             |
| 9         | .028096          | .033739            | 014475             | .003108           | .062458            | .001390            |
|           |                  |                    |                    |                   |                    |                    |
| 10        | .107154          | .080498            | 049426             | .064968           | .131104            | .046411            |
| 11        | .109088          | 088741             | .063567            | 078266            | .111170            | 081415             |
| 12        | .012372          | 035182             | .025363            | .036143           | .050872            | .000315            |
| 13        | 026329           | .085606            | 116281             | .040018           | 036355             | .052949            |
| 14        | .050781          | 074192             | 028214             | 021898            | 007812             | 069187             |
| 15        | .030156          | 018183             | 061603             | .028248           | 042915             | .031804            |
| 16        | 077323           | 046125             | 020110             | .054201           | 080853             | 069715             |
| 17        | 047546           | .011991            | 007051             | .024736           | 094452             | 095873             |
| 18        | 075911           | .046993            | 018497             | .030851           | 060527             | .048241            |
| 19        | .008029          | 031194             | 010106             | .039119           | .005845            | 016197             |
|           |                  |                    |                    |                   |                    |                    |
| 20        | .032887          | .026922            | .033586            | 029131            | .022236            | 019939             |
| 21        | 062247           | 005206             | .066184            | .047248           | 044631             | 036815             |
| 22        | 026779           | 049945             | .106643            | 054526            | .052707            | 081390             |
| 23        | 017395           | 059249             | .098855            | 081031            | 012908             | 009551             |
| 24        | 065927           | .103622            | 025441             | .048251           | 092606             | .121645            |
| 25        | 065857           | .017751            | 015868             | .014272           | 068096             | .042666            |
| 26        | 055450           | .021123            | 052654             | 030367            | 025433             | .094776            |
| 27        | .066126          | .033411            | 012471             | .023341           | .055806            | .016931            |
| 28        | 019009           | 005482             | .026548            | 022233            | .058290            | .009997            |
| 29        | 116311           | .125302            | 076110             | .055549           | 011702             | .102446            |
|           |                  |                    |                    |                   |                    |                    |
| 30        | .068273          | 027635             | .012144            | 111302            | .097219            | 041045             |
|           |                  |                    |                    |                   |                    |                    |
| COSPECTRE | IM               |                    |                    |                   |                    |                    |
| COSPECIAL | )m               |                    |                    |                   |                    |                    |
| K         | U,V              | U, W               | U, T               | V, W              | V, T               | W. T               |
|           |                  |                    |                    |                   |                    |                    |
|           |                  |                    |                    |                   |                    |                    |
|           | 10E-03           | 10E-03             | 10E-03             | 106-04            | 10E-03             | 10E-04             |
| 0         | - 000373         | 017073             | 0.05701            | - 004202          | 007717             | 012227             |
| ĭ         | 008373<br>009924 | .017973<br>.044780 | .085701<br>.342518 | 084292<br>680235  | .007317<br>.049901 | .013227<br>.279137 |
| 2         | 168663           | 015609             | .328504            | 651147            | 010748             | .258642            |
| 3         | 292752           | 120173             | .359372            | 328574            | 084669             | 074726             |
| 4         | 068570           | 205081             | .277308            | 076224            | 033495             | 220098             |
|           |                  |                    |                    |                   |                    |                    |
| 5         | .223775          | 212928             | .340559            | 287357            | .108866            | 187732             |
| 6         | .304743          | 159856             | .370878            | 170140            | .153335            | 301438             |
| 7         | .158089          | 114335             | .265355            | .090145           | .044715            | 300772             |
| 8         | .079339          | 120392             | .227209            | 011709            | 020168             | 314458             |
| 9-11      | .055770          | 062953             | .284338            | .033402           | • 006062           | 249233             |
| 12-14     | .050319          | 044703             | 211020             | 100307            | - 000731           | 210045             |
| 15-21     | .098341          | 044792<br>218987   | .211029<br>.249939 | .199387<br>055831 | 009731             | 319965             |
| 22-30     | .057568          | 218441             | .240149            | ~.124896          | .040147            | 620179<br>675701   |
|           | . 001000         |                    |                    | 1124070           | .040111            | -1015101           |

RUN NO. 80A 40M 11-01-62 2215-2315 EST 301 POINT RUNNING MEAN, 13 POINT BLOCK AVERAGE

| M          | U,V      | U,W      | U.T     | V. W     | V,T               | W.T                  |
|------------|----------|----------|---------|----------|-------------------|----------------------|
|            | 0.14651  | 0.85358  | 0.87566 | 0.50417  | 0.51720           | 0.30132              |
|            | 10E-01   | 10E-02   | 10E-02  | 10E-02   | 10E-02            | 10E-02               |
| 1          | .027328  | . 045875 | .099891 | .009235  | 022702            | 005444               |
|            |          |          |         |          | .023793           | .005464              |
| 2          | .054560  | 019605   | .013817 | .034480  | 005795            | .061062              |
|            | 017013   | .026959  | .043002 | .011559  | .057642           | .010599              |
| <u> </u>   | .114762  | .006591  | .020487 | .050868  | 079426            | .016914              |
| 5          | .051424  | 048185   | 037291  | 081848   | 3007278           | .013795              |
| 6          | .065591  | 022789   | 014545  | .091433  | 051138            | 039123               |
| 7          | . 048596 | 012640   | 040666  | 033905   | 078528            | 003635               |
| 8          | 003997   | .057905  | 038990  | .002226  | 023931            | 031092               |
| 9          | .019395  | .066531  | 038171  | .020071  | 032663            | 097759               |
| 10         | .000334  | .012827  | .000882 | 056488   | .069248           | .000471              |
| 11         | .004890  | 008995   | .037489 | 064159   | .012142           | .033576              |
| 12         | .064535  | .045522  | .027430 | .016781  | 028172            | 018367               |
| 13         | .118942  | 017166   | .054096 | 017597   | 136431            | .000188              |
| 14         | .038378  | .014066  | .056500 | 069881   | 026975            | 047371               |
| 15         | .013307  | .038863  | .035322 | .033364  | .041311           | 120421               |
| .,         | .013301  | •030003  | .037322 | .033304  | .041511           |                      |
| 16         | .018225  | .027865  | .036982 | .063834  | 030579            | 052760               |
| 17         | 064100   | .046232  | 006294  | .015029  | .008481           | 038753               |
| 18         | 003840   | 016909   | .009117 | .007949  | .030495           | 013595               |
| 19         | .022927  | 089402   | .016006 | 017081   | .000194           | .079245              |
| 20         | .030030  | 007102   | 066606  | • 092905 | 068401            | •062962              |
| 21         | 031420   | 023478   | 054084  | 030577   | .056055           | .048329              |
| 22         | .038510  | 058104   | 018424  | .005992  | .053036           | .081663              |
| 23         | .006442  | 032037   | 016329  | 001584   | .018173           | .052744              |
| 24         | .010708  | 032772   | .001678 | .064014  | 022772            | .011770              |
| 25         | .027596  | 086672   | .008358 | .008546  | .01170B           | .052783              |
| 26         | 041132   | .028833  | 032813  | 016728   | .105721           | 096739               |
| 27         | 015370   | .056860  | 007104  | .015166  | .104253           | 019099               |
| 28         | .014340  | 003262   | .009454 | .026411  | .103737           | .014187              |
| 29         | .015833  | .033599  | 068553  | 030845   | 038264            | .059914              |
| 30         | .050661  | .008294  | 023508  | 043354   | 067302            | .002629              |
|            |          |          |         |          |                   |                      |
| QUADRATURE | SPECTRUM |          |         |          |                   |                      |
| K          | U,V      | U.W      | U, T    | V. H     | V.T               | WyT                  |
|            |          |          |         |          |                   |                      |
|            | 10E-03   | 10E-03   | 10E-03  | 10E-04   | 10E-04            | 10E-04               |
| 1          | .461048  | .072239  | .050774 | 064539   | 864163            | 448187               |
| 2          | .300702  | .061604  | 000138  | 149936   | 632965            | 248952               |
| 3          | .174210  | 037192   | 076826  | . 242296 | 161239            | .264269              |
| 4          | .108849  | 057616   | .000591 | .603022  | 029324            | .269173              |
| 5          | .171691  | 004893   | .158084 | .341960  | 043663            | .024541              |
| 4          | 100405   | 012508   | 143350  | 086338   | .173787           | .432515              |
| 6<br>7     | .180605  |          | .163350 |          |                   |                      |
|            | 032778   | .029654  | .095575 | 085494   | •686078<br>884914 | - 482726<br>- 053474 |
| 8          | 200243   | -111684  | .061638 | .214972  | .884916<br>231055 | 053474<br>.007022    |
| 9-11       | .009338  | .041468  | .043805 | . 222743 |                   |                      |
| 12-14      | .019477  | 047632   | .044018 | 115552   | .416661           | .043512              |
| 15-21      | .093284  | .047504  | .056644 | .010258  | 274374            | 055406               |
| 22-30      | 162532   | .037301  | .047181 | 415059   | .567810           | 135505               |

RUN NO. 80A 40M 11-01-62 2215-2315 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

| M            | U                                       | ٧                  | W                   | т                   |
|--------------|---|--------------------|---------------------|---------------------|
|              | 0.24806                                 | 0.86537            | 0.29373             |                     |
|              | 10E-01                                  | 10E-02             | 10E-02              | 0.30911<br>10E-02   |
| 0            | 1.000000                                | 1.000000           | 1.000000            | 1 000000            |
| 1            | .186831                                 | .050635            | 002605              | 1.000000            |
| 2            | -000881                                 | 011352             | •006721             | -212113             |
| 3            | -051786                                 | .091555            | 008561              | .016970             |
| 4            | .016991                                 | .053123            | 037533              | .012265<br>139720   |
| 5            | .010146                                 | -014547            | 105043              | 044799              |
| 6            | 085541                                  | .016745            | 050974              | 015272              |
| 7            | 021629                                  | .034378            | 034368              | 074813              |
| 8            | 037023                                  | 001439             | .001870             | 024895              |
| 9            | 014943                                  | .067307            | 013935              | 002988              |
| 10           | 022781                                  | 056475             | 093082              | 043812              |
| 11           | .125525                                 | 037914             | .003128             | 003160              |
| 12           | .075499                                 | 032601             | 072254              | 048020              |
| 13           | 066606                                  | 041869             | 149386              | 168827              |
| 14           | .018258                                 | 116851             | .032472             | 105527              |
| 15           | 005061                                  | 155651             | ~ 073110            |                     |
| 16           | .008462                                 | .037031            | ~.072110            | 164708              |
| 17           | 028555                                  | .044702            | .029202             | .031226             |
| 18           | .008203                                 | 053904             | .012971<br>087910   | .028605             |
| 19           | 007581                                  | 058839             | -116305             | 038709<br>015944    |
| 20           | .009948                                 | 080404             | *****               |                     |
| 21           | .080696                                 | .080494            | 055975              | .013113             |
| 22           | •120309                                 | 009341             | 034050              | .076511             |
| 23           | •137577                                 | 019457             | • 022455            | -132340             |
| 24           | 057789                                  | .058182<br>.070619 | 003130<br>160078    | .068770<br>.000513  |
| 25           | - 074055                                | 07000              |                     |                     |
| 26           | 074855<br>.018608                       | .075263            | • 095838            | .029833             |
| 27           | .011154                                 | 052151             | .042489             | 084563              |
| 28           | 041676                                  | .011570            | -113165             | 020939              |
| 29           | 157839                                  | •031568<br>•023872 | •085335<br>-•046500 | •016263<br>-•048255 |
| 30           | .030452                                 | 021218             |                     |                     |
|              | *************************************** | .021318            | - 047286            | -017728             |
| POWER SPECTR | UM                                      |                    |                     |                     |
| K            | U                                       | v                  | W                   | T                   |
|              |   |                    | -                   | •                   |
|              | 10E-02                                  | 105-03             | 10E-03              | 10E-03              |
| 0            | .062164                                 | -162460            | 005303              |                     |
| 1            | .179415                                 | .646733            | .005302             | .021476             |
| 2            | .108215                                 | •492488            | .080712             | -142862             |
| 3            | -122880                                 | •385160            | -113118             | -179186             |
| 4            | -126003                                 | -198433            | •132773<br>•117532  | -191226<br>-129233  |
| 5            | 146707                                  |                    |                     |                     |
| 6            | .145792                                 | -209107            | .102775             | .152533             |
| 7            | ·129936                                 | -304041            | -126302             | .203879             |
|              | •082275<br>•073987                      | -336546            | -145658             | .192964             |
| 9-11         | •07344                                  | .266623            | • 123704            | -150587             |
|              |   | -276016            | .089509             | -137526             |
| 12-14        | .093708                                 | .329385            | .093932             | .100363             |
| 15-21        | -110230                                 | .447387            | .142911             | -119870             |
| 22-30        | •103262                                 | .456071            | .182372             | .126331             |

RUN NG. 80A 16M 11- 1-62 2215-2315 EST RUN NO. 80A 40M 11-01-62 2215-2315 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

#### COHERENCE WITH QUADRATURE

| K           | U       | ٧       | W       | T       |
|-------------|---------|---------|---------|---------|
|             | 10E 00  | 10E 00  | 10E 00  | 10E 00  |
| 0           | .146095 | .226155 | .020645 | .015095 |
| 1           | .164685 | .161243 | .032859 | .301009 |
| 2           | .185919 | .216787 | .046486 | .322296 |
| 1<br>2<br>3 | .139127 | .233274 | .089929 | .227919 |
| 4           | .068090 | .137263 | .097186 | .093797 |
| 5           | •104691 | .176756 | .084066 | .124126 |
| 6           | -084689 | .119948 | .173944 | .204079 |
| 7-8         | -130314 | .082601 | .182300 | .152719 |
| 9-11        | -134918 | .103366 | .193887 | -115726 |
| 12-15       | -062891 | .101802 | .134286 | .129736 |
| 16-20       | •103023 | .113982 | .085061 | .089162 |
| 21-27       | .134290 | .103760 | .072697 | -129772 |
| 28-36       | .085850 | .122831 | .090319 | .144822 |
| 37-47       | -144321 | .109534 | .094767 | -128659 |
| 48-60       | -124759 | -122862 | .078798 | .101033 |

#### 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

#### COHERENCE WITH QUADRATURE

| K      | U       | ٧       | W        | T       |
|--------|---------|---------|----------|---------|
|        | 10E 00  | 10E 00  | 10E 00   | 10E 00  |
| 0      | .725811 | .796477 | .863481  | .543237 |
| 1      | .527823 | .660354 | .335647  | .285897 |
| 2      | .183347 | .603435 | .285839  | .300223 |
| 2      | .061560 | .513958 | . 234463 | .244713 |
| 4      | .174866 | .343637 | .208059  | .215760 |
| 5      | .324331 | .172023 | .237854  | .222357 |
| 6      | .387911 | .243189 | .026064  | .284349 |
| 6<br>7 | .239427 | .163067 | .361474  | .440302 |
| 8      | .068935 | .121975 | .347641  | .443872 |
| 9-11   | .272355 | .218573 | . 246987 | .304568 |
| 12-14  | .407090 | .415949 | .281870  | .454224 |
| 15-21  | .266870 | .364527 | .224517  | .168245 |
| 22-30  | .346908 | .343250 | . 320997 | .273825 |

#### RUN NO. 81A 16M 11- 1-62 2332-0046 EST

# GROSS STATISTICS

| CLEAR             | WIND SE              | PEED 3.38 M/SEC | WIND DIRE     | CTION 272 DEG   |
|-------------------|----------------------|-----------------|---------------|-----------------|
| STABLE            | SIGMA A              | 15.6 DEG        | SOLAR RAC     | O MOITAIC       |
| LAND              | SIGMA E              | 1.4 DEG         | NET RADIA     | TION -0.15      |
|                   |                      |                 |               |                 |
|                   | WITH NO              | WITH 301 POINT  | WITH 61 POINT | 301 PT RUN MEAN |
|                   | RUNNING MEAN         | RUNNING MEAN    | RUNNING MEAN  | 10 PT BLOCK AVG |
| VARIANCES         |                      |                 |               |                 |
|                   |                      |                 |               |                 |
| U                 | 0.59948E 00          | 0.51176E-01     | 0.42944E-01   | 0.24432E-01     |
| V                 | 0.79922E 00          | 0.21032E-01     | 0.19849E-01   | 0.72384E-02     |
| W                 | 0.78813E-02          | 0.72425E-02     | 0.73013E-02   | 0.16551E-02     |
| T                 | 0.38779E-01          | 0.82678E-02     | 0.72755E-02   | 0.33030E-02     |
| E                 | 0.70329E 00          | 0.39729E-01     | 0.35047E-01   |                 |
| GUSTINESS RATI    | os                   |                 |               |                 |
|                   |                      |                 |               |                 |
| U                 | 0.22907              | 0.06693         | 0.06131       | 0.04625         |
| ٧                 | 0.26449              | 0.04291         | 0.04168       | 0.02517         |
| W                 | 0.02627              | 0.02518         | 0.02528       | 0.01204         |
| COVARIANCES       |                      |                 |               |                 |
|                   |                      |                 |               |                 |
| U,V               | 0.55727E 00          | 0.37289E-02     | 0.40032E-02   | 0.19771E-02     |
| U,W               | -0.68008E-02         | -0.61259E-02    | -0.64100E-02  | -0.13905E-02    |
| U,T               | 0.35033E-01          | 0.11642E-01     | 0.10032E-01   | 0.55221E-02     |
| V. W              | -0.42784E-02         | -0.41159E-03    | -0.72712E-03  | -0.10761E-03    |
| V.T               | -0.11787E-01         | 0.15356E-02     | 0.17704E-02   | 0.46632E-03     |
| -W <sub>F</sub> T | -0.33454E-02         | -0.26069E-02    | -0.26772E-02  | -0.41415E-03    |
| WE                | 0.12795E-02          | 0.25766E-03     | 0.54158E-04   |                 |
| NORMALIZED COV    | ARIANCES             |                 |               |                 |
|                   |                      |                 |               |                 |
| U.V               | 0.80510              | 0.11366         | 0.13711       | 0.14867         |
| U,W               | -0.09894             | -0.31819        | -0.36200      | -0.21867        |
| U,T               | 0.22977              | 0.56599         | 0.56754       | 0.61471         |
| V, W              | -0.05391             | -0.03335        | -0.06040      | -0.03109        |
| V,T               | -0.06695<br>-0.19136 | 0.11645         | 0.14733       | 0.09537         |
| W,T               | -0.17130             | -0.33689        | -0.36732      | -0.17713        |

RUN NO. BIA 16M 11- 1-62 2332-0046 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| M  | U.V           | U, W     | U,T     | V,W               | V.T     | W, T              |
|----|---------------|----------|---------|-------------------|---------|-------------------|
|    | 0.29202       | 0.17710  | 0.17677 | 0.12040           | 0.12018 | 0.72883           |
|    | 10E-01        | 10E-01   | 10E-01  | 10E-01            | 10E-01  | 10E-02            |
|    | 127250        | 241000   | 647074  | 04053             | 147404  | 247170            |
| 0  | .137359       | 361808   | .567874 | 060521            | .147406 | 367170            |
| 1  | .120407       | 252194   | .473015 | 055714            | .117686 | 247231            |
| 2  | .085202       | 109565   | .316357 | 035388            | .061331 | 090646            |
| 3  | .057284       | 026546   | .184642 | 015157            | .017183 | 000652            |
| 4  | .035459       | .022884  | .093989 | .001075           | 003029  | .044545           |
| 5  | .011364       | .051809  | .037099 | .025470           | 013365  | .054184           |
| 6  | 011879        | . 053508 | 000667  | .038648           | 015975  | .054560           |
| 7  | 027656        | .057766  | 024939  | .027029           |         | .061253           |
|    |               | .063360  |         | 1 1 1 1 7 2       | 013758  |                   |
| 8  | 037817        |          | 053878  | .013096           | 020085  | .049872           |
| 9  | 061191        | .058900  | 080486  | .012519           | 038737  | .034332           |
| 10 | 078614        | . 046645 | 089443  | .014866           | 049338  | .020589           |
| 11 | 073478        | .041794  | 086938  | .014982           | 041606  | .015333           |
| 12 | 067776        | .042553  | 080878  | .023174           | 034390  | .018557           |
| 13 | 060245        | .033240  | 072496  | .022162           | 035286  | .022385           |
|    |               |          |         |                   |         |                   |
| 14 | 030666        | .035735  | 057873  | .008602           | 029561  | - 022200          |
| 15 | .001537       | .028928  | 049374  | 004189            | 011020  | .009834           |
| 16 | .019375       | .006171  | 044543  | 021642            | 000044  | 013638            |
| 17 | .019299       | 004840   | 047914  | 000265            | .005694 | 011853            |
| 18 | .017087       |          | 046047  |                   |         |                   |
|    | 1 2 7 1 1 1 1 | 001368   |         | .011747           | 003458  | .004469           |
| 19 | .023341       | 014520   | 035181  | 008879            | 003680  | .016724           |
| 20 | .024375       | 026448   | 027551  | 009847            | .002274 | .015250           |
| 21 | .015401       | 022344   | 032270  | .005335           | 001949  | .011765           |
|    |               | 002794   |         |                   |         |                   |
| 22 | .002585       |          | 049098  | .005821           | 002553  | .016691           |
| 23 | 026674        | .007466  | 065096  | .001298           | 010185  | £032424           |
| 24 | 046559        | .021307  | 074764  | .010019           | 020764  | .037382           |
| 25 | 047128        | .032928  | 077657  | .009566           | 038427  | .028470           |
| 26 | 032208        | .044913  | 082564  | .016989           | 046174  | .028816           |
| 27 | 024953        | .039153  | 080322  | .018113           | 045565  | .037978           |
| 28 | 020304        | . 029046 | 070571  | .010493           | 036949  | .022290           |
| 29 | 011788        | .007292  | 060650  | .016266           | 029719  | 003376            |
|    |               |          |         |                   |         |                   |
| 30 | 015467        | 004280   | 059729  | .006039           | 007670  | 006878            |
| 31 | 010671        | 005643   | 055893  | 016144            | .015939 | 007830            |
| 32 | 003210        | 004473   | 048959  | 033278            | .023093 | .004760           |
| 33 | .002515       | .004269  | 039201  | 033871            | .027086 | .033232           |
| 34 | .018902       | .000302  | 030927  | 015455            | .027299 | .039852           |
| 35 | .032866       | 005480   | 019381  | 013398            | .022625 | .020214           |
|    |               |          |         |                   |         |                   |
| 36 | .034445       | 025382   | .007579 | 023031            | .019916 | 013809            |
| 37 | .037384       | 033746   | .030862 | 033136            | .016663 | 045655            |
| 38 | .034168       | 027840   | .041498 | 024671            | .016778 | 064015            |
| 39 | .034436       | 021602   | .033495 | 019721            | .031044 | 053316            |
| 40 | .028054       | .002946  | .010465 | 020911            | .039470 | 027669            |
| 41 | .015033       | .015354  | 006472  | 003887            | .034566 | 009898            |
| 42 | .011852       | .018358  | 015805  | .016634           | .024406 | .003258           |
|    |               |          |         |                   |         |                   |
| 43 | .017419       | -021404  | 024105  | .021435           | .013581 | .010647           |
| 44 | .016886       | .036166  | 035632  | .028884           | .006126 | .015858           |
| 45 | .002960       | .038367  | 047762  | .033272           | 010987  | .021826           |
| 46 | 013850        | .044323  | 052212  | .039986           | 010634  | .036800           |
| 47 | 017729        | .048074  | 041330  | .025193           | .002223 | .027156           |
|    |               |          |         |                   |         |                   |
| 48 | 004759        | .031477  | 023803  | 015219            | .013150 | 006671            |
| 49 | .009836       | 021135   | 001496  | 025273            | .013800 | 051098            |
| 50 | .010507       | 050478   | .016749 | 021873            | .011484 | 065850            |
| 51 | .017377       | 050598   | .030116 | 026643            | .020986 | 042674            |
| 52 | .021039       | 032887   | .027068 | 020690            | .036838 | 010802            |
| 53 | .019799       | 020483   | .024993 | 006487            | .037704 | .009629           |
| 54 | .018051       | 032447   | .041805 | .007944           | .028582 | 004379            |
|    | 0301/0        | - 031044 | 047477  | 001613            | 022307  | _ 004710          |
| 55 | .032160       | 031964   | .047473 | .001813<br>004843 | .022397 | 006710<br>.005674 |
| 56 | .022114       | 016580   | .036181 |                   | .013625 |                   |
| 57 | .003061       | 001774   | .023972 | .001595           | .015052 | .014046           |
| 58 | .000426       | .014322  | .014270 | 003604            | .020143 | .009845           |
| 59 | .005189       | .017550  | .012963 | 004900            | .026957 | .004532           |
| 60 | .001814       | .010842  | .025636 | .001263           | .022252 | .004996           |

RUN NO. 81A 16M 11- 1-62 2332-0046 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| M        | U, V               | U,W                | U, T               | V,W               | V,T                | W, T               |
|----------|--------------------|--------------------|--------------------|-------------------|--------------------|--------------------|
|          | 0.29202<br>10E-01  | 0.17710<br>10E-01  | 0.17677<br>10E-01  | 0.12040<br>10E-01 | 0.12018<br>10E-01  | 0.72883<br>10E-02  |
|          | 033445             | 045530             | 0/30/0             | 003003            | 008531             | - 004048           |
| 1 2      | .013665<br>.011234 | 045538<br>038815   | -067242<br>-086290 | 003083<br>022019  | .008521<br>.013979 | 004068<br>030380   |
| 3        | .004823            | 036090             | .090384            | 027804            | .016936            | 039129             |
| 4        | 002567             | 042066             | .088976            | 034623            | .025613            | 035136             |
| 5        | 003170             | 050180             | .090353            | 035019            | .031669            | 021460             |
| 6        | .004915            | 061395             | .082037            | 013278            | .020281            | .000465            |
| 7        | .011158            | 065551             | .075870            | 015382            | .008995            | .013126            |
| 8        | .028023            | 068302             | .075135            | .001870           | .001008            | .015009            |
| 10       | .046948<br>.038344 | 058492<br>046927   | .068215<br>.058075 | .017488<br>009547 | 014607<br>009196   | .020949<br>.010354 |
| 11       | .027287            | 039292             | .043658            | 028541            | .003820            | 012907             |
| 12       | .019849            | 013108             | .033903            | 012681            | .017103            | 030649             |
| 13       | .017387            | 000178             | .023740            | .013044           | .022657            | 029126             |
| 14       | .020414            | .009038            | .010127            | .006167           | .020649            | .000534            |
| 15       | .016467            | .014855            | 002615             | 011862            | .015237            | .023317            |
| 16       | .013340            | .003277            | .003707            | 017377            | .022684            | .021976            |
| 17       | .008322            | .009389            | .009761            | 013524            | .016726            | .008601            |
| 18       | .010915            | .015736            | 000636             | 003286            | .001779            | 001941             |
| 19       | .009795            | .018169            | 001758             | .018531           | 006364             | 004459             |
| 20       | .014246            | .002466            | .011403            | .026043           | 012028             | 001759             |
| 21       | .001409            | 010952             | .021613            | .020743           | 006874             | .001884            |
| 22       | 009207             | 020168             | .036953            | .015017           | 007174             | .004428            |
| 23       | 013868             | 016722             | .040198            | .010105           | 013272             | 012031             |
| 24       | 010957             | .003146            | .025299            | 002082            | 014562             | 016126             |
| 25       | 020221             | .010471            | .003149            | •002219           | 009002             | 006463             |
| 26       | 028564             | .013151            | 010132             | .007362           | .003662            | .001915            |
| 27       | 028875             | -015899            | 030353             | .003648           | .024271            | .014749            |
| 28       | 030145             | .020268            | 040760             | 009557            | .031346            | .008982            |
| 29<br>30 | 034898<br>023785   | .023925<br>.027914 | 037610<br>028739   | 020704<br>001135  | .022929<br>.006892 | .000397<br>013985  |
| 31       | 009524             | .031465            | 025620             | .028577           | 012093             | 037653             |
| 32       | 005064             | .022629            | 019705             | .031849           | 012609             | 048836             |
| 33       | .005827            | .023293            | 010772             | .025244           | 006806             | 048453             |
| 34       | .020739            | .018312            | .002093            | .031000           | 012449             | 054695             |
| 35       | .027715            | .009993            | .003809            | •043437           | 009556             | 038396             |
| 36       | .021597            | 002824             | 001301             | .015525           | 011429             | 008325             |
| 37       | .007811            | 002006             | 017441             | 018887            | 018547             | .010928            |
| 38       | 007055             | 004335             | 029889             | 029066            | 015613             | .021756            |
| 39<br>40 | 007294<br>003036   | 019647<br>023403   | 026281<br>025979   | 025474<br>026492  | 015820<br>011996   | .022540<br>.032490 |
| 41       | .002858            | 022311             | 026844             | 019755            | 017727             | .048342            |
| 42       | .003638            | 018321             | 020131             | 005476            | 032454             | .029361            |
| 43       | .012253            | 007655             | 022893             | .012549           | 043828             | .004255            |
| 44       | .015461            | .000207            | 027056             | .013042           | 032837             | .013094            |
| 45       | .007747            | 006555             | 023044             | 011124            | 021904             | .008828            |
| 46       | 002263             | .006245            | 024290             | 027668            | 014646             | 006853             |
| 47       | .004933            | .017294            | 025461             | 017505            | 012357             | 014592             |
| 48       | .014273            | .004303            | 022768             | .015269           | 000302             | 001115             |
| 49       | .008910            | .007038            | 018804             | .011279           | .014665            | .006594            |
| 50       | 003592             | .026133            | 014426             | 013264            | .031463            | 001792             |
| 51       | 020823             | .041857            | 007783             | 014663            | .048310            | 015764             |
| 52       | 017502             | .030421            | .001261            | .014645           | .041100            | 020789             |
| 53       | 007695             | .028828            | 001124             | .024948           | .017348            | 025148             |
| 54       | 007742             | .027592            | 008476             | .018430           | .000081            | 023068             |
| 55       | 011956             | .003573            | 010508             | .013560           | 006393             | 009779             |
| 56       | 021459             | 016027             | 010751             | .001047           | 003160             | .014781            |
| 57       | 019720             | 005041             | 018190             | 002341            | .000189            | .039831            |
| 58       | 006435             | .007760            | 009667             | .001910           | .017402            | .032373            |
| 59       | .000740<br>.007041 | .002941<br>006715  | .013416            | 004852<br>002860  | .034270            | .031115            |
| 60       | .001041            | 000113             | .035679            | 002000            | .026947            | .027543            |

RUN NO. 81A 16M 11- 1-62 2332-0046 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| M:       | U                  | ٧                                       | W                      | T                                       |
|----------|--------------------|---|------------------------|---|
|          |                    |   |                        |   |
|          | 0.42953            | 0.19853                                 | 0.73021                | 0.72746                                 |
|          | 106-01             | 10E-01                                  | 10E-02                 | 10E-02                                  |
| _        |                    |   |                        |   |
| 0        | 1.000000           | 1.000000                                | 1.000000               | 1.000000                                |
| 1        | .734036            | .625080                                 | .505736                | •746636                                 |
| 2        | .445284            | .269941                                 | . 134394               | .424541                                 |
| 3        | .262202            | .094174                                 | 001900                 | .212792                                 |
| 4        | .139877            | .015901                                 | 043341                 | .089676                                 |
| -        | 050107             | 005001                                  |                        |   |
| 5        | •050197            | 005201                                  | 070113                 | .020799                                 |
| 6        | 012386             | 016087                                  | 053699                 | 019649                                  |
| 7<br>8   | 055574             | 035220                                  | 042119                 | 043358                                  |
| 9        | 097855<br>~.140166 | 043456<br>067268                        | 024097<br>036360       | 052598                                  |
| •        | *140106            | 001200                                  | 030300                 | 071670                                  |
| 10       | 166994             | 098726                                  | 029278                 | 094956                                  |
| 11       | 179692             | 104168                                  | 017579                 | 098655                                  |
| 12       | 171233             | 113584                                  | 019067                 | 091366                                  |
| 13       | 150347             | 103619                                  | 036413                 | 085544                                  |
| 14       | 123511             | 096329                                  | 055038                 | 080569                                  |
|          |                    |   |                        |   |
| 15       | 099248             | 081135                                  | 049662                 | 070127                                  |
| 16       | 081954             | 063706                                  | 045612                 | 055762                                  |
| 17       | 081332             | 078395                                  | 050125                 | 065119                                  |
| 18       | 067176             | 093468                                  | 079556                 | 075733                                  |
| 19       | 037199             | 099020                                  | 054826                 | 075474                                  |
|          |                    |   |                        |   |
| 20       | 022362             | 094992                                  | 021669                 | 085359                                  |
| 21       | 026468             | 077104                                  | 022402                 | 103846                                  |
| 22       | 052945             | 051976                                  | 048463                 | 119299                                  |
| 23       | 085705             | 043661                                  | 072360                 | 124492                                  |
| 24       | 115239             | 081042                                  | 107838                 | 118260                                  |
|          |                    |   |                        |   |
| 25       | 118340             | 110726                                  | 110608                 | 113292                                  |
| 26       | ~•105900           | 127500                                  | 095108                 | 118667                                  |
| 27<br>28 | 102526             | 124598                                  | 081805                 | 122141                                  |
| 29       | 106132<br>107945   | 101818                                  | 057957                 | 102797                                  |
| 2.7      |                    | 062594                                  | 041321                 | 072328                                  |
| 30       | 090228             | 048140                                  | 024622                 | - 053017                                |
| 31       | 063611             | 011509                                  | .003530                | 053017                                  |
| 32       | 038547             | •022260                                 | .024099                | 038951<br>035526                        |
| 33       | 004424             | .033214                                 | .008352                | 051510                                  |
| 34       | .029171            | .042299                                 | 004725                 | 059447                                  |
| -        |                    | 0012277                                 |                        | *************************************** |
| 35       | .050790            | .046013                                 | 002775                 | 053692                                  |
| 36       | .062772            | .025383                                 | .000147                | 038556                                  |
| 37       | .069942            | .002001                                 | .004227                | 015996                                  |
| 38       | .071645            | .004054                                 | .000069                | .006659                                 |
| 39       | .056860            | .017237                                 | .020973                | .010233                                 |
| _        |                    |   |                        |   |
| 40       | .022903            | .042023                                 | .015329                | .004394                                 |
| 41       | 004416             | .072009                                 | .006006                | 001986                                  |
| 42       | 014571             | .079927                                 | .005638                | 012653                                  |
| 43       | 022398             | .084292                                 | .013419                | 020861                                  |
| 44       | 045734             | .061053                                 | 001298                 | 022049                                  |
| 45       | 083705             | 037344                                  | - 034443               | 017/7/                                  |
| 46       | 112027             | .037346<br>.039652                      | -• 034667<br>-• 051690 | 017674                                  |
| 47       | 110147             | .051589                                 | 034295                 | 017667                                  |
| 48       | 089455             | .047005                                 | 001280                 | 005249<br>.024820                       |
| 49       | 051380             | .021425                                 | .073484                | .048810                                 |
|          | 1021300            | *************************************** | 1013404                | *040010                                 |
| 50       | 009135             | .002474                                 | .098344                | .062578                                 |
| 51       | .033202            | .013212                                 | .052634                | .059557                                 |
| 52       | .048484            | .011600                                 | .020143                | .040771                                 |
| 53       | .054292            | 009478                                  | 006599                 | .029760                                 |
| 54       | .069344            | 017427                                  | .001104                | .040943                                 |
|          |                    |   | 7.7.                   |   |
| 55       | -069014            | 021373                                  | .023660                | .035425                                 |
| 56       | .060731            | 031761                                  | .013100                | .015280                                 |
| 57       | .060528            | 046091                                  | 020409                 | 001823                                  |
| 58       | •055292            | 032372                                  | 038457                 | .003522                                 |
| 59       | .054976            | 005538                                  | 026446                 | .024908                                 |
|          | 051013             |   |                        |   |
| 60       | .051262            | •009101                                 | 034830                 | •045386                                 |
|          |                    |   |                        |   |

RUN NO. 81A 16M 11- 1-62 2332-0046 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| CO.C | - | • | • | • | - |   |
|------|---|---|---|---|---|---|
| cos  | • | c | L | • | м | т |

| K             | U.V               | U,W              | U,T                | V.W                 | V,T                | W, T             |
|---------------|-------------------|------------------|--------------------|---------------------|--------------------|------------------|
|               | 10E-03            | 10E-03           | 10E-02             | 10E-03              | 10E-03             | 10E-03           |
| 0             | 000397            | 005628           | .006041            | .003791             | 009662             | 002175           |
| ĭ             | .019907           | 124249           | .072444            | .025783             | 023489             | 045864           |
| ž             | .216894           | 196893           | .093601            | 001439              | .079607            | 092759           |
| 3             | .434307           | 296846           | .103705            | 056512              | .167318            | 128467           |
| 4             | .403760           | 363614           | .087322            | 065863              | .127891            | 108435           |
| 5             | .477067           | 400406           | .080327            | 038409              | -116569            | 112696           |
| 6<br>7-8      | .748170           | 530419<br>452018 | .091459            | 097421              | .201532            | 166765           |
|               | .504061           |                  | .067702<br>.038166 | 101995              | .156136            | 174837<br>135952 |
| 9-11<br>12-15 | 021856<br>.079273 | 295831<br>246850 | .025364            | 048121<br>046421    | .052366<br>.068075 | 119574           |
| 16-20         | .052627           | 163819           | .018682            | .007315             | .051810            | 069642           |
| 21-27         | .024674           | 095852           | .007248            | .000684             | .015309            | 051321           |
| 28-36         | .024198           | 064149           | .004214            | 007629              | .013799            | 024014           |
| 37-47         | .002111           | 033761           | .001603            | .003850             | 000747             | 017726           |
| 49-60         | 001428            | 013578           | .001029            | .001465             | .001488            | 005649           |
| QUADRATU      | RE SPECTRUM       |                  |                    |                     |                    |                  |
| K             | U,V               | U,W              | U.T                | V.W                 | V,T                | W. T             |
|               | 10E-03            | 10E-03           | 10E-03             | 10E-04              | 10E-04             | 10E-04           |
| •             | .094068           | 045045           | 107014             |                     | 100700             | 317101           |
| 1<br>2        | .167727           | 065965<br>159742 | .197216<br>.350717 | •143313<br>••211922 | .198780<br>.630545 | 080229           |
| 3             | .291264           | 271787           | .388135            | 701329              | .480713            | .111290          |
| 4             | .218180           | 265639           | .309944            | 626572              | .233510            | 171918           |
| 5             | 029021            | 186185           | .279619            | 347037              | .483813            | 430888           |
| 6             | 122957            | 213436           | .281818            | 494797              | .085312            | 031622           |
| 7-8           | 005328            | 103449           | .224098            | 154424              | .043891            | 240891           |
| 9-11          | 081250            | .042839          | .039901            | 604364              | .673855            | 251697           |
| 12-15         | .048664           | 015462           | .071324            | 045407              | 066844             | 357261           |
| 16-20         | .063467           | 040239           | .044422            | .226294             | 191349             | .177339          |
| 21-27         | .001069           | 032416           | .026269            | 120308              | .057353            | .035686          |
| 28-36         | .012071           | 022740           | .022275            | .080184             | .058491            | . 028547         |
| 37-47         | .007795           | 017717           | .008659            | .119873             | 031791             | .054001          |
| 48-60         | 001612            | 002086           | .004520            | 012579              | .000123            | -009751          |
| POWER SPE     | CTRUM             |                  |                    |                     |                    |                  |
| K             | 1                 | U                | V                  | 1                   | и                  | Ţ                |
|               | 10E               | -02              | 10E-02             | 106                 | -03                | 10E-03           |
| 0             | .01               | 8600             | .003965            | .01                 | 3407               | .035738          |
| ĭ             |                   | 2751             | .058223            |                     | 4632               | .445424          |
|               | •30               | 8947             | .112530            | . 31                | 1471               | .594675          |
| 2<br>3        |                   | 6260             | .155643            |                     | 0562               | . 642706         |
| 4             | .36               | 4763             | .122564            | - 28                | 8073               | .515367          |
| 5             |                   | 2873             | .102263            |                     | 7945               | .452796          |
| 6             |                   | 5412             | -111080            |                     | 4016               | .470616          |
| 7-8           |                   | 2778             | .096174            |                     | 8491               | .442242          |
| 9-11          |                   | 0383             | .071866            |                     | 1390               | .285315          |
| 12-15         |                   | 8757             | .063619            |                     | 3759               | .231753          |
| 16-20         |                   | 3750             | .051979            |                     | 7701               | .154513          |
| 21-27         |                   | 9348             | .036143            |                     | 3796               | .086262          |
| 28-36         |                   | 5384             | .022475            |                     | 7153               | .053718          |
| 37-47         |                   | 1814             | .016824            |                     | 4591               | .031733          |
| 48-60         | .01               | 4084             | .009721            | . 05                | 9275               | .017198          |

RUN NO. 81A 16M 11- 1-62 2332-0046 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

|           | 4        | 44 14   | *       | V        | v T      | м. т    |
|-----------|----------|---------|---------|----------|----------|---------|
| H         | u•A      | U,W     | U•T     | V,W      | V, T     | W, T    |
|           | 0.13304  | 0.63595 | 0.89822 | 0.34631  | 0.48913  | 0.23381 |
|           | 10E-01   | 10E-02  | 10E-02  | 10E-02   | 10E-02   | 10E-02  |
| 0         | .148609  | 218652  | .614779 | 031074   | .095336  | 177131  |
| 1         | 038330   | .035968 | .211241 | .121583  | 043628   | 013709  |
| 2         | .038476  | 018901  | .092640 | .042863  | .020106  | 019674  |
| 3         | .009058  | 008425  | 030270  | 019326   | .011259  | .002582 |
| 4         | .029192  | .066158 | 072863  | .027423  | .075914  | .043396 |
| 5         | .038923  | 027803  | 058193  | 040109   | .056202  | .006734 |
| 6         | 055635   | 009934  | 010258  | .033852  | .026928  | .007989 |
| 7         | 003914   | .011142 | 014515  | 096160   | .003039  | .051143 |
| 8         | 031952   | .074336 | 102437  | .030184  | 032796   | .073117 |
| 9         | 000765   | .009200 | 026897  | .040434  | -031100  | .003643 |
| 10        | 027603   | .023051 | 061480  | 002252   | 031639   | .027004 |
| 11        | .006859  | .037102 | 032921  | .006156  | 004086   | .074057 |
| 12        | .061577  | .018410 | 062854  | 053617   | .032590  | .014373 |
| 13        | 011932   | .008779 | 096575  | .037332  | .000490  | .042435 |
| 14        | .027114  | 007633  | 033564  | 032348   | .021993  | .015902 |
| 15        | . 040940 | 003891  | .005556 | 028123   | .000394  | 048610  |
| 16        | 033068   | 079928  | .044636 | .014975  | 002847   | 110119  |
| 17.       | .002106  | 079571  | .032843 | 031717   | 049215   | 083707  |
| 18        | .031969  | 023568  | .088852 | .006189  | .048641  | 052879  |
| 19        | . 040284 | 064680  | .062325 | 043318   | .032197  | 037328  |
| 20        | .043166  | .051420 | .083053 | .006684  | .017975  | .023560 |
| 21        | 028335   | .052085 | .067979 | 042292   | 011643   | 057193  |
| 22        | .014973  | .022115 | .092482 | .002188  | 026671   | 002016  |
| 23        | 017900   | .000083 | .015365 | 002936   | 031289   | 002123  |
| 24        | 009721   | 035435  | 016312  | 060429   | 011730   | 050761  |
| 25        | .013488  | 017574  | 001451  | 065308   | .027322  | 043707  |
| 26`       | .011997  | .069179 | 063470  | 005977   | .037978  | •055929 |
| 27        | .016088  | .095224 | 057435  | 010010   | .022598  | .104300 |
| 28        | 000545   | .094498 | 073415  | 048980   | 007548   | .136241 |
| 29        | .039484  | .089796 | 035153  | 044881   | .009996  | .078740 |
| 30        | .059979  | .000141 | 100679  | .073582  | .043113  | .027536 |
| COSPECTRU | IM       |         |         |          |          |         |
| K         | U.V      | U, W    | U,T     | V, W     | V,T      | W,T     |
|           | 10E-03   | 10E-03  | 10E-03  | 10E-04   | 10E-04   | 10E-04  |
| 0         | . 059432 | 000792  | .080960 | .052413  | .316128  | -013087 |
| 1         | . 104403 | .005510 | .270817 | .498379  | .836288  | .187364 |
| 2         | .037568  | 015798  | .336660 | .368070  | .306092  | 068156  |
| 3         | . 113513 | 095163  | .538254 | .267843  | .171607  | 550487  |
| 4         | .142546  | 100503  | .405109 | .298795  | .011475  | 479295  |
| 5         | .086813  | 008564  | .283989 | .338985  | 251599   | 080572  |
| 6         | .021528  | .004794 | .364219 | . 375029 | 384852   | 053833  |
| 7         | 064583   | 063104  | .379412 | . 279995 | 500622   | 308388  |
| 8         | 080825   | 049478  | .327886 | .112193  | 439390   | 243219  |
| 9-11      | .018970  | 062912  | .275749 | 083512   | .098522  | 132039  |
| 12-14     | .077934  | 033708  | .137572 | . 157245 | .405893  | 157947  |
| 15-21     | .072931  | 048832  | .147506 | 293993   | . 233639 | 128955  |
| 22-30     | .213806  | 124629  | .186572 | 462188   | .518811  | 243607  |

RUN NO. 81A 16M 11- 1-62 2332-0046 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

| M          | U, V              | U,W     | U, T              | V, W               | V,T               | W.T      |
|------------|-------------------|---------|-------------------|--------------------|-------------------|----------|
|            | 0 12304           | 0.63595 | 0.89822           | 0.34631            | 0.48913           | 0.23381  |
|            | 0.13304<br>10E-01 | 10E-02  | 10E-02            | 10E-02             | 10E-02            | 10E-02   |
|            | 101 01            | 101 01  | 100 00            |                    | 100 01            | 201 01   |
| 1          | .094889           | 025411  | .068700           | .002147            | 009986            | 053109   |
| ž          | .020907           | .048257 | .021474           | .045883            | 008843            | 082700   |
| 3          | .059680           | .073228 | 001017            | .044582            | 056562            | 088957   |
| 4          | .029288           | .033509 | 035379            | 068850             | 053815            | 045956   |
| 5          | .066298           | .091562 | 014631            | .032044            | 034950            | 063871   |
|            | _                 |         |                   |                    |                   |          |
| 6          | .054555           | .060915 | .028716           | .011846            | 025026            | 006062   |
| 7          | .087706           | .006821 | .043686           | 004289             | 041023            | 000936   |
| 8          | .092368           | .005352 | 000199            | 073927             | 090222            | .018898  |
| 9          | .070347           | .016171 | 023766            | 024658             | 080434            | .020558  |
| 10         | .036062           | .056835 | 030744            | .058705            | 022956            | .017371  |
|            |                   |         |                   |                    |                   |          |
| 11         | .007138           | .016379 | 036261            | 008141             | .019369           | .027462  |
| 12         | .063247           | 027383  | 004899            | 033829             | 029077            | .033929  |
| 13         | .002702           | 039559  | 021594            | 036297             | 009511            | .048315  |
| 14         | 017961            | 012041  | 032002            | 009944             | .013810           | 037267   |
| 15         | .028044           | .030907 | 031823            | 070770             | 043794            | 012332   |
|            | 012004            | 057507  | 022504            | 02/10/             | 042114            | 012457   |
| 16         | .013004           | .057507 | 022596            | 034185             | .042116           | 012657   |
| 17         | 036925            | 006413  | 062160            | .027958            | .021565           | .030902  |
| 18         | 043826            | -014521 | 021044            | 034789             | .053260<br>001123 | 005614   |
| 19<br>20   | .009078           | -000884 | .006146<br>030702 | .036665<br>.095678 | 049541            | 028566   |
| 20         | .039358           | 005118  | 030102            | *073010            | -1047241          | 020300   |
| 21         | .011858           | .047177 | .012796           | .038861            | 026699            | 052746   |
| 22         | .001144           | 005330  | .017735           | .004476            | 013806            | 004329   |
| 23         | .049467           | 019033  | .012093           | .016661            | 084437            | .021062  |
| 24         | 024831            | 005777  | 007320            | 004436             | 006366            | .006572  |
| 25         | .014482           | .038861 | .029794           | .050390            | 021664            | 058034   |
|            |                   |         |                   |                    |                   |          |
| 26         | .007867           | .006403 | .062048           | 023430             | 014618            | 060943   |
| 27         | . 025692          | 011412  | .029493           | .024642            | .016795           | 015548   |
| 28         | .022157           | 003919  | .045728           | 033363             | ~.001029          | 012204   |
| 29         | .038150           | .007131 | .042101           | 031303             | 060979            | 020936   |
| 30         | .022051           | 051775  | .022011           | 009576             | 005817            | .008302  |
|            |                   |         |                   |                    |                   |          |
| QUADRATURE | SPECTRUM          |         |                   |                    |                   |          |
| K          | U,V               | U, W    | U, T              | V.W                | V.T               | W. T     |
|            |                   |         |                   |                    |                   |          |
|            | 10E-03            | 10E-03  | 10E-03            | 10E-04             | 10E-03            | 10E-04   |
|            |                   |         |                   |                    |                   |          |
| 1          | .471553           | .128378 | 113130            | 275131             | 119555            | 102892   |
| 2          | .385355           | .101198 | 005390            | 177282             | 098098            | 136699   |
| 3          | .301568           | .107932 | .079509           | . 195751           | 089695            | 400214   |
| 4          | .099147           | .099412 | .036269           | .230599            | 022772            | 553798   |
| 5          | 016399            | .052532 | 003838            | 028888             | .017192           | 471783   |
| 1,1        |                   | 1000000 |                   | . Washing          |                   |          |
| 6          | .005302           | .06664  | 002239            | . 183401           | 001354            | 313894   |
| 7          | .016632           | .006258 | 009526            | . 387733           | .003464           | 187138   |
| 8          | .045123           | .018172 | .001503           | .118630            | 007577            | 119232   |
| 9-11       | •112693           | 054381  | .108149           | 012397             | 010325            | 059619   |
| 12-14      | . 039495          | .022325 | .068488           | . 359868           | .039485           | 080740   |
| 15-21      | .086917           | 048477  | .025019           | 314538             | 008801            | .034316  |
| 22-30      | .099653           | .003357 |                   |                    | 1111111           | 053587   |
| 2 E - 30   | * 0 7 70 73       | .003331 | .023915           | .170103            | 010335            | . 477761 |

RUN NO. BIA 16M 11- 1-62 2332-0046 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

| М              | U                                       | ٧                  | W                  | T                                       |
|----------------|---|--------------------|--------------------|---|
|                | 0.24431                                 | 0.72448            | 0.16554            | 0 22022                                 |
|                | 10E-01                                  | 10E-02             | 10E-02             | 0.33023<br>10E-02                       |
| 0              | 1.000000                                | 1.000000           | 1.000000           | 1 000000                                |
| ĭ              | .346719                                 | .206131            |                    | 1.000000                                |
| 2              | .274227                                 | •128951            | .104811            | .324179                                 |
| 3              |   |                    | .008303            | .118795                                 |
| 4              | .176368                                 | .144616            | 044384             | 048342                                  |
| 7              | .089166                                 | .199625            | 142771             | 146107                                  |
| 5              | .050528                                 | .174630            | 021982             | 054375                                  |
| 6              | .043038                                 | 003276             | .008642            | 020234                                  |
| 7              | .028695                                 | .081769            | 029581             | 072771                                  |
| 8              | 131059                                  | .042185            | 033299             | 123281                                  |
| 9              | 054360                                  | .053107            | 077823             | 052004                                  |
| 10             | 172674                                  | -148669            | 054962             | 068241                                  |
| 11             | 078248                                  | .037908            | 067284             | 001574                                  |
| 12             | 130383                                  | 016968             | 107057             | 087915                                  |
| 13             | 165273                                  | 058872             | 107798             | 150683                                  |
| 14             | 154906                                  | .053080            | 009488             | 050869                                  |
|                |   |                    |                    | *************************************** |
| 15             | 113813                                  | .064360            | 126942             | 022810                                  |
| 16             | 040984                                  | 093863             | .052880            | .034808                                 |
| 17             | 031607                                  | .060140            | 000477             | •002764                                 |
| 18             | .044271                                 | .000381            | .064592            | .053162                                 |
| 19             | .053293                                 | 064817             | .080924            | .028886                                 |
| 20             | .116186                                 | 027121             | 048498             | .056120                                 |
| 21             | .005560                                 | 086559             | 067302             | .036785                                 |
| 22             | .071032                                 | 029594             | .007307            | .034423                                 |
| 23             | .028150                                 | 129279             | 106073             | 060040                                  |
| 24             | 047396                                  | 062006             | .119962            | 053908                                  |
| 25             | 012301                                  | 060342             | .090968            | 000398                                  |
| 26             | 061614                                  | 079969             | .017583            | 104045                                  |
| 27             | 076038                                  | 051879             | 047537             | 065872                                  |
| 28             | 111087                                  | 134452             | 062002             | 063882                                  |
| 29             | 024953                                  | 165660             | 048087             | 046113                                  |
| 30             | 163802                                  | 130905             | 018561             | 020074                                  |
| POWER SPECTRUM |   |                    |                    |   |
| _              |   |                    | -                  |   |
| K              | U                                       | V                  | W                  | 1.                                      |
|                | 10E-02                                  | 10E-02             | 10E-04             | 10E-03                                  |
| 0              | .069661                                 | .036870            | .033159            | •031700                                 |
| i              | .314486                                 | .117860            | .499540            | .176662                                 |
| ž              | .282113                                 | .051615            | .760274            | .202183                                 |
| 3              | .275096                                 | .032294            | .931355            | .268878                                 |
| 4              | -148959                                 | .028399            | .722975            | .231823                                 |
|                | 0.02704                                 | 022244             | £25002             | 100/11                                  |
| 5<br>6         | .082786<br>.103734                      | .023346            | .535903            | .190413                                 |
| 7              |   | •022859<br>022450  | • 720393           | .219921                                 |
| 6              | .093514<br>.073651                      | .022650<br>.015595 | .977903<br>.831982 | .218009                                 |
| 9-11           | .084003                                 | .016885            | - 804329           | .174961                                 |
| , - & &        | *************************************** | •01000)            | ~ 7U73E7           | .168290                                 |
| 12-14          | .046157                                 | .034405            | .566463            | .097037                                 |
| 15-21          | .074155                                 | .026056            | .606415            | .086204                                 |
| 22-30          | .091172                                 | .034220            | . 910626           | .119104                                 |

# RUN NO. 81A 40M 11-01-62 2332-0046 EST

# GROSS STATISTICS

| CLEAR<br>Stable<br>Land | HIND S<br>SIGMA<br>SIGMA | A 9.2 DEG                      | C WIND DIR<br>SOLAR RA<br>NET RADI | ECTION 289 DEG<br>DIATION O<br>ATION -0.15 |
|-------------------------|--------------------------|--------------------------------|------------------------------------|--|
|                         | WITH NO<br>RUNNING MEAN  | WITH 301 POINT<br>RUNNING MEAN | WITH 61 POINT                      | 301 PT RUN MEAN                            |
| VARIANCES               |                          | HEAR                           | RUNNING MEAN                       | 10 PT BLOCK AVG                            |
| TARTANCES               |                          |                                |                                    |  |
| U                       | 0.42123E-00              | 0.14120E-01                    |                                    |  |
| V                       | 0.56180E 00              | 0.13425E-01                    | 0.10023E-01                        | 0.79802E-02                                |
| W                       | 0.41488E-02              | 0.33672E-02                    | 0.88272E-02                        | 0.72454E-02                                |
| 7                       | 0-14997E-01              | 0.15011E-02                    | 0.33645E+02<br>0.88437E-03         | 0.10128E-02<br>0.10414E-02                 |
| E                       | 0.49359E-00              | 0.15469E-01                    | 0.11107E-01                        | 0.104145-02                                |
| GUSTINESS RAT           | 105                      |                                |                                    |  |
| U                       | 0.13300                  | 0.00404                        |                                    |  |
| ٧                       | 0.15359                  | 0.02435                        | 0.02052                            | 0.01831                                    |
| W                       | 0.01320                  | 0.02374<br>0.01189             | 0.01925<br>0.01189                 | 0.01744<br>0.00652                         |
| COVARIANCES             |                          |                                |                                    | 2000052                                    |
| U, V                    | 0.45559E-00              | 0 375335                       |                                    |  |
| U,W                     | 0.75949E-02              | 0.37523E-02<br>-0.11563E-02    | 0-17992E-02                        | 0-28174E-02                                |
| U,T                     | -0.30806E-01             | 0.21702E-02                    | -0.15765E-02                       | -0.28634E-03                               |
| V, W                    | 0.77709E-02              | -0.12586E-02                   | 0.11589E-02                        | 0.16120E-02                                |
| V. T                    | -0.31428E-01             | 0.18883E-02                    | -0.12011E-02                       | -0.40043E-03                               |
| ₩∙T                     | -0-23877E-02             | -0.39140E-03                   | 0.10629E-02<br>-0.46708E-03        | 0.12306E-02<br>-0.10521E-03                |
| WE                      | 0.31393E-02              | -0.22051E-04                   | -0.21424E-04                       |  |
| NORMALIZED COV          | ARIANCES                 |                                |                                    |  |
| U,V                     | 0.93654                  | 0.77054                        |                                    |  |
| U,W                     | 0.18168                  | 0.27254                        | 0.19128                            | 0.37052                                    |
| U,T                     | -0.38759                 | -0.16769                       | -0.27148                           | -0.10072                                   |
| V,W                     | 0.16096                  | 0.47139                        | 0.38927                            | 0.55919                                    |
| V, T                    | -0.34239                 | -0.18720                       | -0.22039                           | -0.14782                                   |
| WaT                     | -0.30270                 | 0.42063                        | 0.38041                            | 0.44799                                    |
|                         |                          | -0.17409                       | -0.27078                           | -0.10244                                   |

RUN NO. 81A 40M 11-01-62 2332-0046 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| н        | U,V               | U.W                | U, T             | V,W                | V,T              | W,T                |
|----------|-------------------|--------------------|------------------|--------------------|------------------|--------------------|
|          | 0.94070           | 0.58090            | 0.29770          | 0.54509            | 0.27935          | 0.17250            |
|          | 10E-02            | 10E-02             | 10E-02           | 10E-02             | 10E-02           | 10E-02             |
| 0        | .191386           | 271271             | .389348          | 220667             | .380595          | 271127             |
| i        | .153669           | 186242             | .314473          | 110278             | .266293          | 172599             |
| 2        | .086136           | 104081             | .207293          | 027337             | -144247          | 088338             |
| 3        | . 049496          | 061534             | .139216          | 000694             | .086627          | 053014             |
| 4        | .034984           | 040212             | .095350          | .002949            | .062399          | 032195             |
| 5        | .020561           | 018183             | .057673          | .002206            | .044522          | 018326             |
| 6        | .009196           | .003433            | .016756          | 001405             | .033446          | .006526            |
| 7        | .005622           | .017352            | 014704           | .000586            | .033590          | .024060            |
| 8        | 001980            | .033429            | 028173           | .004256            | .018822          | .031188            |
| 9        | 007831            | .039782            | 029433           | 001031             | .004018          | .032642            |
| 10       | 006706            | .040743            | 026948           | .000439            | .003155          | .021542            |
| 11       | .000772           | .038435            | 020174           | .008182            | 001572           | .030274            |
| 12       | .007279           | .022526            | 013991           | .012719            | 015063           | .027053            |
| 13       | 000596            | .012961            | 018576           | .005833            | 012974           | .015311            |
| 14       | 011402            | .037448            | 022432           | .007395            | 007469           | .019550            |
| 15       | 022860            | .047789            | 024627           | .006169            | 010300           | .014287            |
| 16       | 022306            | .037287            | 022157           | .004963            | 010084           | .013658            |
| 17       | 014171            | .023760            | 023400           | .008649            | 011174           | .011795            |
| 18       | 005118            | .032956            | 029413           | .006065            | 015448           | .007340            |
| 19       | .002686           | .024025            | 028664           | 005402             | 023075           | .013313            |
| 20       | 007134            | .000720            | 026904           | 011224             | 025043           | .007688            |
| 21       | 019232            | 003607             | 029094           | 008476             | 024321           | .007897            |
| 22       | 035120            | .013025            | 036634           | 000314             | 035312           | .013558            |
| 23       | 039882            | .024604            | 040650           | .008505            | 040327           | .019737            |
| 24       | 047900            | .037901            | 062605           | .017059            | 047143           | .045104            |
| 25       | 051903            | .059922            | 074466           | .026725            | 055972           | .056227            |
| 26       | 039679            | -062438            | 073587           | .028143            | 053415           | .049958            |
| 27       | 033588            | -054688            | 074552           | .020767            | 043328           | .043118            |
| 28<br>29 | 038566<br>032499  | .052487<br>.043233 | 071431<br>060858 | .030699<br>.031888 | 032996<br>030504 | .047491            |
| 20       | - 017043          | 040014             | - 048422         | .020557            | 032122           | 040370             |
| 30       | 017863            | .040016            | 045622<br>019399 | .019452            | 031531           | .049379<br>.033231 |
| 31<br>32 | 005764<br>.002528 | .032669<br>.025203 | .010198          | .005820            | 023822           | .008708            |
| 33       | .002328           | .001892            | .024100          | .003305            | 018810           | .000093            |
| 34       | .011388           | 016178             | .029169          | 000445             | 013598           | 006479             |
| 35       | .016929           | 016072             | .018284          | .001015            | 004235           | 002916             |
| 36       | .017079           | 018632             | .012035          | 011165             | 010487           | 017010             |
| 37       | .007122           | 032054             | .008447          | 004916             | 021330           | 028524             |
| 38       | 001781            | 035446             | .003554          | .011145            | 024252           | 030549             |
| 39       | 001438            | 052372             | 003749           | .001077            | 029427           | 035699             |
| 40       | 003189            | 056122             | 020797           | .005647            | 043970           | 021857             |
| 41       | 010628            | 038894             | 032408           | .024880            | 055228           | 007290             |
| 42       | 013388            | 027271             | 035973           | .025271            | 051353           | 008217             |
| 43       | 008229            | 029292             | 040692           | .024156            | 050581           | 000753             |
| 44       | 009914            | 038074             | 035978           | .019150            | 053688           | .004732            |
| 45       | 020887            | 034949             | 042071           | .022625            | 055402           | .010465            |
| 46       | 029606            | 022004             | 044142           | .025566            | 047017           | .006849            |
| 47       | 016193            | .008257            | 034176           | .027445            | 034589           | .007494            |
| 48       | 003152            | .018295            | 013427           | .022083            | 030588           | .009999            |
| 49       | .001014           | .002753            | .009124          | .022180            | 029984           | .000440            |
| 50       | .000850           | .007944            | .009960          | .027173            | 032973           | .001649            |
| 51       | 007335            | .024734            | .002866          | .046785            | 034192           | .012244            |
| 52       | .005228           | .017266            | .008802          | .024244            | 026570           | .013266            |
| 53       | .041102           | 012031             | -020827          | 013942             | 004672           | .003625            |
| 54       | .067271           | 022201             | .032639          | 033825             | .017842          | .000757            |
| 55       | .062018           | 021556             | .027207          | 029378             | .022056          | .002144            |
| 56       | .032040           | 008219             | .007073          | 035088             | .030443          | 008636             |
| 57       | 000769            | .017337            | 016864           | 032744             | .025009          | 004738             |
| 58       | 028784            | .033952            | 032683           | 027712             | .018194          | 002404             |
| 59       | 047116            | .025335            | 039687           | 023559             | .011829          | 009730             |
| 60       | 044370            | .011994            | 030716           | 025443             | .008866          | 018081             |

RUN NO. 81A 40M 11-01-62 2332-0046 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| M        | U, V               | U,W                | U,T                | V.W                | V.T                | No E              |
|----------|--------------------|--------------------|--------------------|--------------------|--------------------|-------------------|
|          | 0.94070<br>10E-02  | 0.58090<br>10E-02  | 0.29770<br>10E-02  | 0.54509<br>10E-02  | 0.27935<br>10E-02  | 0.17250<br>10E-02 |
| ,        | 051479             | - 021445           | 035331             | 012347             | - 020991           | 005101            |
| 1 2      | .051478<br>.043987 | 021445<br>005308   | .035321<br>.038055 | .012347<br>019615  | 020991<br>007005   | 003101            |
| 3        | .024885            | 001187             | .027776            | 044034             | 002824             | .010189           |
| 4        | .009885            | .014226            | .016467            | 056376             | 009836             | .018910           |
| 5        | .012967            | .008185            | .027181            | 035058             | 028372             | .016604           |
| 6        | .023968            | 015526             | .041627            | 019531             | 035028             | .014991           |
| 7        | .040726            | 027187             | .048418            | 021432             | 033244             | .015206           |
| 8        | .037168            | 027507             | .046693            | 022319             | 022119             | .013483           |
| 9        | .034921            | 046357             | .040441            | 018594             | 012891             | .029689           |
| 10       | .040584            | 062370             | .036577            | 016037             | 012962             | .036610           |
| 11       | .044012            | 054122             | .028446            | 023576             | 015173             | .043482           |
| 12       | .034932            | 040398             | .023046            | 025252             | 015933             | .040837           |
| 13       | .018249            | 028272             | .010526            | 012790             | 020372             | .030588           |
| 14       | .012540            | 010953             | .003938            | 004758             | 027477             | .018841           |
| 15       | .017963            | 000530             | .006631            | 002669             | 032598             | .020399           |
| 16       | .020013            | 001079             | .003046            | 009760             | 030456             | .015284           |
| 17       | .013080            | .007940            | .003812            | 012374             | 020226             | .006457           |
| 18       | .004881            | 001930             | .007037            | 014595             | 014016             | 005506            |
| 19       | 002649             | 003696             | .004963            | .000872            | 007792             | 009477            |
| 20       | 014589             | .001444            | .000370            | .009561            | 005427             | 013304            |
| 21       | 024887             | .002372            | 005579             | .004817            | 003713             | 014497            |
| 22       | 034499             | .001024            | 009236             | .003887            | 002137             | 021147            |
| 23       | 032634             | 002650             | 003949             | .013644            | 000070             | 027134            |
| 24       | 029075             | .013586            | 016206             | .014862            | .006247            | 030509            |
| 25       | 044989             | .022551            | 023273             | .001043            | .007888            | 020037            |
| 26       | 059079             | .008258            | 025149             | 017390             | .012386            | 011485            |
| 27       | 060994             | 003625             | 021160             | 020465             | .014533            | 009349            |
| 28       | 048714             | 016682             | 013798             | 017672             | .013818            | .003526           |
| 29       | 030702             | 018978             | 010272             | 017093             | .016671            | .006110           |
| 30       | 027802             | 013722             | 009577             | 009494             | .018877            | .001145           |
| 31       | 028007             | 017231             | 008261             | 000028             | .015269            | .002259           |
| 32       | 020094             | 029760             | 006127             | .004512            | .007451            | .007665           |
| 33       | 021786             | 019174             | 007641             | 009512             | .013092            | .002749           |
| 34       | 012119             | 018934             | 005705             | 010798             | .020041            | .000526           |
| 35       | 008566             | 013249             | 004054             | .002097            | .017735            | 001048            |
| 36       | 004038             | .006853            | 004686             | .008854            | .015723            | .002372           |
| 37       | .007186            | .010840            | 007910             | .014583            | .010937            | .006772           |
| 38       | .017424            | .016201            | 006812             | .019753            | .010449            | .002435           |
| 39<br>40 | .026629<br>.029390 | .016952<br>.000041 | 007620<br>007815   | .018763<br>.024880 | .010254<br>.004342 | .000777           |
| 40       | • 02 73 70         | 1400001            | 001013             | *024000            | .004342            | •000077           |
| 41       | .020057            | .006165            | 013958             | .025809            | .005383            | .001098           |
| 42       | 001340             | 002275             | 014924             | .008996            | .016637            | .005636           |
| 43       | 015392             | 011855             | 007877             | 021765             | .024935            | .003926           |
| 44<br>45 | 018424<br>.002507  | 014481<br>005498   | 002549<br>.001004  | 026645<br>007483   | .022485<br>.015619 | .007423<br>010144 |
| 7,       | .002301            | -1003470           | .001004            | - : 001403         | .013017            |                   |
| 46       | .012579            | .013223            | .003867            | .001677            | .009533            | 008158            |
| 47       | .006702            | .022646            | .003836            | 005867             | .008126            | .004470           |
| 48       | 000807             | .015484            | .009205            | 017997             | .018181            | .012423           |
| 49<br>50 | .005975<br>.014329 | .001261<br>.011835 | .022903<br>.018238 | 031231<br>032966   | .026186<br>.009144 | .006562           |
| 70       | *014377            | .011033            | .010230            | -1032,400          | .007144            | .000200           |
| 51       | .028461            | .016103            | .017407            | 029181             | 008928             | .010597           |
| 52       | .027899            | .012815            | .023441            | 002523             | 015764             | 000198            |
| 53       | .019959            | .013100            | .019848            | .017172            | 016353             | 007596            |
| 54       | .012179            | .011958            | -010270            | .025693            | 016550             | 014268            |
| 55       | .003244            | .016989            | 007868             | .028730            | 016424             | 014679            |
| 56       | 009396             | .029552            | 017715             | .030553            | 015866             | 018645            |
| 57       | 006827             | .026359            | 012952             | .018735            | 017560             | 015659            |
| 58       | 002464             | .031719            | 017070             | .009421            | 013316             | 011598            |
| 59       | 000001             | .038404            | 020808             | .001611            | 015114             | 013153            |
| 60       | .000246            | .029508            | 018692             | 004630             | 022211             | 017197            |

RUN NC. 81A 40M 11-01-62 2332-0046 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| HUNFIELLE | DAOTOCOVARIANCE                         |                    |                    |          |
|-----------|---|--------------------|--------------------|----------|
| M         | U                                       | V                  | W                  | Ť        |
| **        | •                                       | •                  | •                  | 1.       |
|           | 0.10025                                 | 0.88272            | 0.33660            | 0.88406  |
|           | 10E-01                                  | 10E-02             | 10E-02             | 10E-03   |
|           |   |                    |                    |          |
| 0         | 1.000000                                | 1.000000           | 1.000000           | 1.000000 |
| ı         | .674826                                 | .633736            | .513014            | .755535  |
| 2         | .371987                                 | .256476            | .196483            | .520356  |
| 3         | .221120                                 | .075076            | .091414            | .378612  |
| 4         | .150654                                 | .019006            | .037086            | .289272  |
| 2         | 202247                                  |                    |                    |          |
| 5<br>6    | .099363                                 | .008998            | .001313            | -211736  |
| 7         | •038269<br>-•009967                     | •032900            | 025850             | .137569  |
| 8         | 038340                                  | -053396            | 054146             | .087367  |
| 9         | 044389                                  | .038050<br>.014181 | 045728<br>040834   | .047421  |
| •         | *******                                 | .014101            | 040834             | .012545  |
| 10        | 057077                                  | 010968             | 049856             | .003023  |
| 11        | 083401                                  | 034574             | 063423             | 014628   |
| 12        | 095568                                  | 047652             | 072249             | 039590   |
| 13        | 107439                                  | 033305             | 049261             | 054318   |
| 14        | 106802                                  | 022918             | 063988             | 076156   |
|           |   |                    |                    |          |
| 15        | 102016                                  | 034743             | 093197             | 091757   |
| 16        | 093210                                  | 048506             | 104276             | 104219   |
| 17        | 097182                                  | 059391             | 085588             | 120820   |
| 18        | 107108                                  | 062359             | 085853             | 137283   |
| 19        | 110521                                  | 058874             | 085489             | 151250   |
| 20        |   |                    |                    |          |
| 20        | 104642                                  | 054753             | 088674             | 158446   |
| 21<br>22  | 097654                                  | 064256             | 073013             | 166138   |
| 23        | 105217                                  | 081345             | 022532             | 170979   |
| 24        | 117627<br>128416                        | 089061             | ~.024881           | 166514   |
| 4.4       | 120410                                  | 102677             | 056691             | 182623   |
| 25        | 130838                                  | 121163             | 078206             | 196145   |
| 26        | 126718                                  | 115598             | 078526             | 198055   |
| 27        | 127692                                  | 093944             | 076433             | 200894   |
| 28        | 114778                                  | 076962             | 075543             | 193545   |
| 29        | 093428                                  | 057898             | 087825             | 176725   |
|           |   |                    |                    |          |
| 30        | 072011                                  | 049525             | 080259             | 159168   |
| 31        | 032146                                  | 028850             | 030684             | 115471   |
| 32        | 001087                                  | 024341             | .008201            | 072691   |
| 33        | .023797                                 | 044579             | .027835            | 042962   |
| 34        | .037201                                 | 048749             | .023057            | 022045   |
| 26        | 020705                                  | 22/201             |                    |          |
| 35        | .029785                                 | 036391             | .006502            | 022364   |
| 36<br>37  | •027500<br>030533                       | 035558             | .030680            | 020573   |
| 38        | .030533<br>.032901                      | 039275<br>028412   | .048216            | 022450   |
| 39        | .041388                                 | 025828             | .032847<br>.052255 | 023353   |
| • •       |   | *023020            | •032233            | 021931   |
| 40        | .016199                                 | 056425             | .051528            | 033215   |
| 41        | 002402                                  | 068529             | .025510            | 049026   |
| 42        | .002718                                 | 044260             | .015201            | 054434   |
| 43        | .011978                                 | 009998             | 000556             | 055055   |
| 44        | •010550                                 | .004620            | .006460            | 050278   |
|           |   |                    |                    |          |
| 45        | .017006                                 | 008301             | .016196            | 047314   |
| 46        | .024666                                 | 026382             | .028674            | 034693   |
| 47        | .025488                                 | 036473             | .012405            | 015422   |
| 48        | .014683                                 | 029245             | 008328             | .006179  |
| 49        | •006206                                 | 045077             | .013347            | •029931  |
| 50        | - 008030                                | 0/0533             | 01770              |          |
| 50<br>51  | 008828                                  | 060573             | .017793            | •034532  |
| 51<br>52  | 016726<br>004293                        | 072074             | 034557<br>071417   | .033941  |
| 53        | •028269                                 | 059066<br>022315   | 071417             | .035497  |
| 54        | .046601                                 | 022315<br>.027038  | 046975<br>013446   | .051198  |
|           | *************************************** | •0£1036            | -• 013440          | .067869  |
| 55        | .030728                                 | .036337            | .001115            | .060940  |
| 56        | 001038                                  | .039635            | .026619            | .056426  |
| 57        | 022443                                  | .043558            | .020719            | .039845  |
| 58        | 051601                                  | .050336            | .009203            | .032834  |
| 59        | 056610                                  | .044472            | .013570            | .021154  |
|           |   |                    |                    |          |
| 60        | 048572                                  | .012730            | .030899            | .016097  |
|           |   |                    |                    |          |

RUN NC. 81A 40M 11-01-62 2332-0046 EST 61 PCINT RUNNING MEAN. NO BLOCK AVERAGING

| • | ~ | e | • | • | • | Ŧ | 04 | 144 |
|---|---|---|---|---|---|---|----|-----|
| L | u | э | , | _ | L | • | RI | /п  |

| K              | U, V               | U,W              | U•T                | V. H             | V, T               | W,T                |
|----------------|--------------------|------------------|--------------------|------------------|--------------------|--------------------|
|                | 10E-03             | 10E-03           | 10E-03             | 10E-04           | 10E-03             | 10E-04             |
| 0              | .025680            | 002281           | .018637            | 048108           | .017869            | 013276             |
| 1              | .176984            | 055495           | .121234            | 653732           | .123227            | 225540             |
| 2              | .192203            | 121810           | .122038            | 615169           | .105002            | 341646             |
| 3              | .191858            | 163138           | .123833            | 495416           | .086154            | 388322             |
| 4              | .122899            | 103018           | .094545            | 403017           | .067699            | 249126             |
| 5              | .067155            | 095348           | .067634            | 371020           | .048369            | 229974             |
| 6<br>7-8       | .106136<br>.115859 | 141342<br>084840 | .084706<br>.079949 | 592188<br>439148 | .050752<br>.050587 | 375534<br>275818   |
| 9-11           | .065645            | 059882           | .045340            | 381419           | .031680            | 162479             |
| 12-15          | .048319            | 027776           | .020839            | 390142           | .029607            | 101688             |
| 16-20          | .041136            | 034295           | .015095            | 355223           | .023380            | 085071             |
| 21-27          | .021845            | 022364           | .014206            | 297576           | .016406            | 093485             |
| 28-36          | .015110            | 018852           | •006795            | 189806           | .011925            | 052068             |
| 37-47<br>48-60 | .001052<br>.000041 | 008542<br>007216 | .003309<br>.001352 | 141979<br>099353 | .005103<br>.003635 | 039972<br>023649   |
| 40-00          | .000041            | 007216           | •001332            | -,077333         | •003633            | 023044             |
| QUADRATUR      | E SPECTRUM         |                  |                    |                  |                    |                    |
| K              | U• V               | U,W              | U•T                | V.W              | V.T                | W, T               |
|                | 10E-03             | 10E-04           | 108-04             | 10E-04           | 10E-04             | 10E-04             |
| 1              | 041477             | 527792           | .076218            | 382002           | 092274             | .063019            |
| 2              | .053156            | 445359           | .240385            | 376458           | 267467             | .096425            |
| 3              | .166354            | 426699           | .391311            | 401521           | 286385             | .167446            |
| 4              | .139740            | 485658           | .326648            | 360525           | 125316             | .168596            |
| 5              | .021055            | 325710           | .214046            | 421044           | 016220             | .066681            |
| 6              | 025066             | .086693          | .114823            | 273321           | .010735            | 052916             |
| 7-8            | .015467            | .326813          | .091623            | 087530           | 048317             | 070433             |
| 9-11           | .004329            | .268283          | 027741             | 179841           | 035363             | .004426            |
| 12-15          | .024204            | 173584           | .038097            | 086317           | .059727            | .016303            |
| 16-20          | .031153            | 069509           | .069300            | .107710          | 012225             | 026625             |
| 21-27          | .033173            | 116502           | .069310            | .143745          | 051909             | 011773             |
| 28-36          | .006611            | .015012          | .008426            | .044359          | 025383             | 004795             |
| 37-47          | .006407            | 070509           | .002968            | .029869          | 012552             | .005653            |
| 48-60          | .003627            | 028716           | .009578            | .031972          | 011367             | .001611            |
| POWER SPE      | CTRUM              |                  |                    |                  |                    |                    |
| K              |                    | U                | V                  |                  | W                  | T                  |
|                | 10E                | -03              | 10E-03             | 1 OE             | -03                | 10E-03             |
| 0              | .07                | 5560             | .077267            | •00              | 9356               | .012387            |
| 1              |                    | 4886             | .619176            |                  | 6844               | .104906            |
| 2              |                    | 8527             | .633615            |                  | 9978               | -117912            |
| 3              |                    | 9264<br>9654     | .593126<br>.442655 |                  | 6009               | .111409            |
| 4              | •17                | 7074             | •442000            | •10              | 2548               | .071224            |
| 5              |                    | 9876             | .345438            |                  | 6868               | .045754            |
| 6              |                    | 2122             | .356982            |                  | 8527               | .046673            |
| 7-8            |                    | 2361             | .372254            |                  | 7381               | .041260            |
| 9-11<br>12-15  |                    | 7710<br>5565     | .302377<br>.313597 |                  | 8276<br>1387       | .027877<br>.016828 |
|                | -                  |                  |                    | .09              | 1.701              | .010078            |
| 16-20          |                    | 6498             | .269814            |                  | 6814               | .012160            |
| 21-27          |                    | 0611             | -158165            |                  | 1002               | .010154            |
| 28-36          |                    | 1563             | .104954            |                  | 1552               | .006854            |
| 37-47<br>48-60 |                    | 7356<br>7216     | .059435<br>.040313 |                  | 3172               | -004182            |
| 70-0U          | •04                | 1610             | .040313            | • 02             | 9178               | .003109            |

RUN NO. BIA 40M 11-01-62 2332-0046 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

| M        | υ•Λ          | U,W      | U,T     | V.W      | V.T      | W, T    |
|----------|--------------|----------|---------|----------|----------|---------|
|          | 0.76049      | 0.28428  | 0.28858 | 0.27076  | 0.27486  | 0.10275 |
|          | 10E-02       | 10E-02   | 10E-02  | 10E-02   | 10E-02   | 10E-02  |
| 0        | .370473      | 100724   | .558601 | 147888   | .447697  | 102397  |
| ĭ        | .257656      | .093803  | .354602 | 016310   | . 268546 | .059793 |
| 11 2     | . 2098 49    | .044879  | .271899 | 014356   | .181110  | .047886 |
| . 3      | .150092      | .082375  | .162006 | .043500  | .078450  | .070800 |
| 1        | .091937      | .019141  | .068587 | .023597  | 019687   | .034661 |
|          | 4041431      | •019141  | •066967 | .023341  | 019607   | •034001 |
| 5        | .045680      | .050276  | .003191 | .082324  | 071147   | .030069 |
| 6        | .016088      | .038218  | 076760  | .000483  | 068636   | 013240  |
| 7        | .030925      | 055195   | 088276  | 032727   | 069552   | 086556  |
| 8        | .015625      | 090105   | 113439  | 007629   | 095746   | 089578  |
| 9        | .034019      | 076888   | 123156  | .036601  | 090704   | 044103  |
| 10       | 030503       | 027969   | 176169  | - C46078 | 084659   | 063037  |
| ii       | 031134       | 009174   | 165262  | .070318  | 035962   | 006576  |
| 12       | 025157       | 008343   | 146164  | 022125   | .014026  | 007566  |
| 13       | 032458       | 027708   | 103790  | 044739   | .029674  | 042375  |
| 14       | .004418      | 001490   | 053035  | 031859   | .060113  | .006025 |
|          |              |          |         |          |          |         |
| 15       | .005114      | 007506   | 030062  | 062256   | .073974  | 012409  |
| 16       | .037931      | 062174   | .036754 | 047148   | .084960  | .004838 |
| 17       | .036657      | 001733   | .032094 | 049836   | .110114  | .010910 |
| 18       | 047457       | .039551  | .017564 | .021801  | .094163  | .076610 |
| 19       | 033755       | .051392  | .020306 | 009403   | .080923  | .052552 |
| 20       | 030057       | .025807  | 040126  | 037544   | .045446  | .038620 |
| 21       | 007108       | .002371  | 005081  | 014726   | .014892  | .021532 |
| 22       | 027161       | .023237  | 043564  | .044057  | 035024   | .045380 |
| 23       | 029249       | 002839   | .000967 | 002577   | 022924   | 007352  |
| 24       | 037211       | 011290   | .007147 | .035403  | 050538   | 023169  |
| 25       | 052467       | .001786  | .004137 | .033722  | 058302   | 021369  |
| 26       | 093417       | 000613   | 001249  | .070744  | 108313   | 008588  |
| 27       | 073919       | .013802  | .027219 | .039446  | 106582   | 014765  |
| 28       | 060016       | .036845  | .033878 | .033158  | 085007   | .008154 |
| 29       | 065997       | .030524  | .033566 | .023598  | 096510   | .019978 |
|          |              | =        | = =     |          |          |         |
| 30       | 027705       | •Q55072  | -080714 | .003202  | 042270   | 016113  |
| COSPECTR | UM           |          |         |          |          |         |
| K        | U <b>, V</b> | U.W      | U, T    | V,W      | V.T      | ₩øT     |
|          | 10E-03       | 10E-04   | 10E-03  | 10E-04   | 10E-03   | 10E-04  |
| 0        | .229810      | .037733  | .034993 | 005116   | .047886  | 010777  |
| ĭ        | . 793536     | .293200  | .225140 | .115672  | .126628  | 019658  |
| 2        | .436708      | .487202  | .259276 | . 095495 | .089883  | .109467 |
| 3        | .358520      | .633480  | .302048 | 265220   | .186334  | .252212 |
| 4        | .278876      | . 330639 | .221408 | 443745   | .203016  | .157325 |
| 5        | -164312      | 007577   | .099752 | 174625   | .116507  | 003897  |
| 6        | .119789      | 201530   | .058083 | 073825   | .075388  | 061267  |
| 7        | .143477      | 475220   | .077110 | 292514   | .065215  | 151727  |
| å        | .132289      | 494172   | .063551 | 581884   | .053620  | 197397  |
| 9-11     | .016384      | 001712   | .023044 | 232017   | .037393  | 067366  |
|          |              |          |         |          |          |         |
| 12-14    | .028231      | 154512   | .024428 | .045638  | .005967  | 034319  |
| 15-21    | .037999      | 198810   | .019941 | 186970   | .021497  | 065662  |
| 22-30    | .041489      | 435576   | .032867 | 203738   | .023060  | 119132  |

RUN NO. 81A 40M 11-01-62 2332-0046 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

| H        | U,V               | U,W               | U, T                                    | V , W                                   | V, T                                    | W, T     |
|----------|-------------------|-------------------|---|---|---|----------|
|          | 0.74040           | 0 20420           | 0.28858                                 | 0.27076                                 | 0.27486                                 | 0.10275  |
|          | 0.76049<br>10E-02 | 0.28428<br>10E-02 | 10E-02                                  | 10E-02                                  | 10E-02                                  | 10E-02   |
|          | .02 01            | •••               |   |   |   |          |
| 1        | .039524           | 028242            | .030888                                 | 082791                                  | 033012                                  | .028754  |
| Ž        | .008558           | .037807           | .003417                                 | 085023                                  | 018028                                  | 012290   |
| 3        | .040692           | .008345           | .022641                                 | 094818                                  | 027594                                  | 019982   |
| 4        | .070240           | .043149           | .008738                                 | 101139                                  | 041886                                  | 028245   |
|          |                   |                   |   | 080184                                  | 063140                                  | 033718   |
| 5        | .104511           | .100082           | .010530                                 | 000104                                  | 063140                                  | 033110   |
| 6        | .125402           | .122708           | .002977                                 | 011494                                  | 076864                                  | 064302   |
| 7        | .152552           | .075055           | .025179                                 | 006172                                  | 078520                                  | 070023   |
| 8        | .160537           | .020335           | .019159                                 | 009227                                  | 075741                                  | 068325   |
| 9        | .129468           | .055667           | .006174                                 | .019131                                 | 049921                                  | 086318   |
| 10       | .112136           | 021212            | 019553                                  | 025674                                  | 023977                                  | 085591   |
| 10       | .112130           | .021212           | • | *************************************** | *************************************** |          |
| 11       | .071993           | +.024050          | 039097                                  | 011870                                  | 003911                                  | 039534   |
| 12       | .016115           | .007163           | 055983                                  | .027827                                 | .021290                                 | 038758   |
| 13       | 020592            | .044382           | 064333                                  | .038047                                 | .020551                                 | 048328   |
| 14       | .002214           | .030419           | 052977                                  | .087205                                 | 020982                                  | 069332   |
| 15       | 026671            | .039964           | 048137                                  | .099370                                 | 008398                                  | 075972   |
| 13       | 028011            | • 037704          | -1040131                                | .077310                                 | - • 000370                              | •013772  |
| 16       | 023138            | .043073           | .002458                                 | .095934                                 | 027798                                  | 083905   |
| 17       | 008600            | .011502           | .034954                                 | .090417                                 | 005873                                  | 030241   |
| 18       | 037449            | .052954           | .082027                                 | .030501                                 | .020730                                 | .018082  |
|          |                   |                   | .089986                                 | .027937                                 | 007163                                  | .052300  |
| 19       | 045414            | 002803            |   |   | 005144                                  |          |
| 20       | 038687            | 025362            | .072575                                 | 068501                                  | 005144                                  | .102635  |
| 21       | 021768            | 036368            | .050106                                 | 041373                                  | 021743                                  | .132208  |
| 22       | 008000            | .007553           | .016676                                 | 036734                                  | 008632                                  | .141209  |
| 23       | 017912            | 030263            | 002128                                  | 070874                                  | .005433                                 | .151306  |
| 24       | .019695           | 064671            | .020819                                 | 074105                                  | 010472                                  | .133958  |
|          |                   | 038451            | .003991                                 | 043193                                  | 002259                                  | .105542  |
| 25       | .003458           | 036431            | •00377)                                 | 043173                                  | 002234                                  | • [05542 |
| 26       | .018595           | 008881            | 020626                                  | 018579                                  | 021749                                  | .024817  |
| 27       | .009867           | 042971            | 041826                                  | 004888                                  | 029127                                  | 008133   |
| 28       | .007351           | 043870            | 060706                                  | 004832                                  | 015066                                  | 031827   |
|          |                   |                   |   | .057590                                 | 019036                                  | 048013   |
| 29       | .050411           | 009646            | 046441                                  |   |   |          |
| 30       | .079758           | .004305           | 038502                                  | .039936                                 | 008096                                  | 079716   |
| QUADRATU | RE SPECTRUM       |                   |   |   |   |          |
| K        | U, V              | U,W               | υ,τ                                     | V , W                                   | V,T                                     | W,T      |
|          | 10E-03            | 10E-04            | 10E-04                                  | 10E-03                                  | 10E-04                                  | 10E-04   |
| l        | .404353           | .894778           | 064002                                  | .010510                                 | 756576                                  | 401988   |
| 2        | . 398971          | .671777           | 128994                                  | 041811                                  | 628459                                  | 355283   |
| 3        | ·28699            | . 444536          | .309410                                 | 101278                                  | 567603                                  | 009965   |
| 4        | .024415           | .427805           | •502626                                 | 062224                                  | 308461                                  | .071199  |
|          |                   |                   |   |   |   |          |
| 5        | 111618            | .227324           | 109110                                  | 023569                                  | .015630                                 | 031045   |
| 6        | 114929            | 253949            | 283592                                  | 055484                                  | .230251                                 | .105468  |
| 7        | 052635            | 474550            | .110212                                 | 056081                                  | .215977                                 | .087491  |
| 8        | .021350           | 356744            | .192489                                 | 018083                                  | .004833                                 | 026595   |
| 9-11     | 009599            | 024194            | .078779                                 | .002215                                 | 080863                                  | .014937  |
| 12-14    | .018077           | .082503           | 013045                                  | 005745                                  | 076514                                  | .013246  |
| 15-14    | •010011           | • 002 303         | .010043                                 | 1007147                                 | •010714                                 | *1147240 |
| 15-21    | .023474           | 121130            | .065392                                 | 011571                                  | 044407                                  | .032757  |
| 22-30    | .020578           | 114219            | .086196                                 | 001978                                  | 040323                                  | .024933  |
| 24-30    | • 020378          | - • 114614        | •000170                                 | 001718                                  | -•070323                                | 41127773 |

RUN NO. 81A 40M 11-01-62 2332-0046 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

| м            | U        | V        | W        | T        |
|--------------|----------|----------|----------|----------|
|              | 0.79844  | 0.72434  | 0.10121  | 0.10430  |
|              | 10E-02   | 10E-02   | 10E-02   | 10E-02   |
| 0            | 1.000000 | 1.000000 | 1.000000 | 1.000000 |
| ĭ            | .539446  | .643275  | .129864  | .621417  |
| Ž            | .432745  | .464019  | .108859  | .379717  |
| 3            | .308983  | .309495  | 040893   | .188511  |
| 4            | .191656  | .138088  | 008070   | .065078  |
| 5            | .104860  | .040254  | 164473   | 023029   |
| 6            | .009158  | .042690  | 106979   | 088595   |
| 7            | .000203  | 011787   | 092572   | 142409   |
| 8            | 052581   | 068215   | .008968  | 188078   |
| 9            | 068210   | 132275   | 092448   | 179021   |
| 10           | 108968   | 155262   | 144256   | 193636   |
| 11           | 100250   | 154904   | 135532   | 207268   |
| 12           | 10?555   | 096065   | 051986   | 203220   |
| 13           | 073044   | 045093   | .015383  | 123526   |
| 14           | 090233   | 034175   | 079863   | 121344   |
| 15           | 071846   | .001844  | .009574  | 095340   |
| 16           | .080418  | .045756  | .028209  | 056031   |
| 17           | .018659  | .071394  | .040721  | 006899   |
| 18           | 025718   | .081525  | 040685   | .024845  |
| 19           | 037512   | .091582  | .052684  | .023460  |
| 20           | 063545   | .069414  | .094989  | 024112   |
| 21           | ~.070545 | .028623  | .014339  | 003438   |
| 22           | 112684   | 009505   | 015991   | 015/20   |
| 23           | 051247   | 008176   | 001096   | .041004  |
| 24           | 082447   | 045220   | 009122   | .034154  |
| 25           | 101747   | 061436   | .031623  | .036129  |
| 26           | 087630   | 095077   | 046442   | .017533  |
| 27           | 063458   | 134871   | .037594  | .020326  |
| 28           | 039637   | 158668   | 032425   | .036831  |
| 29           | 033647   | 138856   | 010171   | .024795  |
| 30           | .038099  | 108679   | .008778  | .072686  |
| POWER SPECTR |          |          |          |          |
|              |          |          |          |          |
| К            | U        | V        | W        | r        |
|              | 10E-02   | 10E-02   | 10E-04   | 10E-03   |
|              | 105-02   | 105-02   | 105-04   | 105-03   |
| 0            | .041439  | .041330  | .026715  | .020665  |
| 1            | .164739  | .142503  | .282802  | -130948  |
| 2            | -111790  | .099661  | .493151  | .148371  |
| 3            | .100515  | .108703  | .750619  | .163992  |
| •            | .075428  | .080040  | .683982  | .120284  |
| 5            | .041073  | .040940  | .514859  | .075189  |
| 6            | .029407  | .031317  | .491156  | .057785  |
| 7            | .031583  | .031434  | .512532  | .053030  |
| 8            | .023483  | .029350  | .508490  | .041479  |
| 9-11         | •015412  | .018990  | .306639  | .030366  |
| 12-14        | .012761  | .006385  | .291388  | .023460  |
| 15-21        | .015249  | .011997  | . 384549 | .014688  |
| 22-30        | .021467  | .011600  | .553887  | .016803  |
|              |          |          |          |          |

| RUN NO | . 81A     | 16M       | 11- 1-62    | 2332-0046 | EST |
|--------|-----------|-----------|-------------|-----------|-----|
| RUN NO | 3. 81A    | 4 OM      | 11-01-62    | 2332-0046 | EST |
| 61 6   | POINT RUE | INTING ME | N. NO BLOCK | AVERACING |     |

# COHERENCE WITH QUADRATURE

| K           | U       | ٧       | W        | T       |
|-------------|---------|---------|----------|---------|
|             | 10E 00  | 10E 00  | 10E 00   | 10E 00  |
| 0           | -132558 | •101223 | . 296155 | .025108 |
| 1           | .135000 | .031110 | .212148  | .178711 |
| 1<br>2<br>3 | .195379 | .073348 | .158103  | .107130 |
| 3           | .118417 | .155266 | .151001  | .079989 |
| 4           | .040313 | .132019 | .197686  | .069710 |
| 5           | .079438 | .027241 | . 220284 | .067882 |
| 6           | .062941 | .123658 | .215893  | .149045 |
| 7-8         | .047043 | .124715 | .177673  | .112228 |
| 9-11        | .172873 | .138533 | .065741  | .074936 |
| 12-15       | .083R22 | -152605 | .108625  | .063120 |
| 16-20       | .047393 | .174697 | .122588  | .114449 |
| 21-27       | .090533 | .110435 | .119412  | .054195 |
| 28-36       | .085885 | .105921 | .128154  | .076190 |
| 37-47       | -067900 | .116603 | .086977  | .075069 |
| 48-60       | .099521 | .082830 | .061810  | .067159 |

#### 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

#### COHERENCE WITH QUADRATURE

| K     | U       | v       | W        | T       |
|-------|---------|---------|----------|---------|
|       | 10E 00  | 10E 00  | 10E 00   | 10E 00  |
| 0     | .712097 | •797711 | .662640  | .061907 |
| 1     | .627740 | .753819 | .717726  | .087298 |
| 2     | .446679 | .596049 | .675450  | .041609 |
| 2 3   | .321472 | .481698 | .693330  | .135648 |
| 4     | -254285 | .265646 | .693402  | .280885 |
| 5     | -214176 | .105297 | .530620  | .360064 |
| 6     | .330611 | .073198 | .184288  | •450020 |
| 7     | .225686 | -150306 | .128953  | .362259 |
| 8     | .202973 | .170273 | .043258  | .157043 |
| 9-11  | -356176 | -138855 | .408464  | .336461 |
| 12-14 | -241769 | •279961 | .242873  | .223600 |
| 15-21 | .229377 | .229437 | . 293213 | .230096 |
| 22-30 | .231872 | .225826 | .318266  | .142874 |

RUN NO. 818 16M 11-02-62 0046-0202 EST

# GROSS STATISTICS

| CLEAR           | WIND S       | PEED 3.85 M/SE | C WIND DIRE   | CTION 295 DEG   |
|-----------------|--------------|----------------|---------------|-----------------|
| STABLE          | SIGMA        | 4 9.6 DEG      | SOLAR RAD     | DIATION O       |
| LAND            | SIGMA        | 2.1 DEG        | NET RADIA     |                 |
|                 |              |                |               |                 |
|                 |              |                |               |                 |
|                 |              |                |               |                 |
|                 | WITH NO      | WITH 301 POINT | WITH 61 POINT | 301 PT RUN MEAN |
|                 | RUNNING MEAN | RUNNING MEAN   | RUNNING MEAN  | 10 PT BLOCK AVG |
|                 |              |                |               |                 |
| VARIANCES       |              |                |               |                 |
|                 |              |                |               |                 |
| U               | 0.22152E-00  | 0.11010E-00    | 0.95519E-01   | 0.50569E-01     |
| v               | 0.42307E-00  | 0.53458E-01    | 0.48268E-01   | 0.17483E-01     |
| - ŭ             | 0.19418E-01  | 0.18804E-01    | 0.18475E-01   | 0.39084E-02     |
| ï               | 0.61721E-01  | 0.11642E-01    | 0.10349E-01   | 0.49587E-02     |
| •               | 01011111 01  | 00110111 01    | 01103172 01   | 00473012 02     |
| Ε               | 0.33200E-00  | 0.91183E-01    | 0.81131E-01   |                 |
|                 |              |                |               |                 |
|                 |              |                |               |                 |
| GUSTINESS RATIO | OS           |                |               |                 |
|                 |              |                |               |                 |
|                 | 0 10006      | 0.00/10        |               | 0.05043         |
| Ü               | 0.12225      | 0.08619        | 0.08028       | 0.05841         |
| V               | 0.16894      | 0.06005        | 0.05706       | 0.03434         |
| W               | 0.03619      | 0.03562        | 0.03530       | 0.01624         |
|                 |              |                |               |                 |
| COVARIANCES     |              |                |               |                 |
|                 |              |                |               |                 |
|                 |              |                |               |                 |
| U.V             | -0.27963E-01 | -0.48706E-02   | -0.55954E-02  | -0.18699E-02    |
| U,W             | -0.11448E-01 | -0.15657E-01   | -0.15102E-01  | -0.44248E-02    |
| U,T             | 0.34999E-01  | 0.20889E-01    | 0.17710E-01   | 0.10423E-01     |
| V.W             | 0.53057E-02  | 0.12522E-02    | 0.45208E-03   | 0.52730E-03     |
| V • T           | -0.12044E-00 | -0.16046E-02   | -0.13640E-02  | -0.12968E-02    |
| W.T             | -0.64978E-02 | -0.50528E-02   | -0.49288E-02  | -0.11554E-02    |
|                 |              |                |               |                 |
|                 |              |                |               |                 |
| WE              | 0.84861E-03  | 0.54496E-03    | 0.37234E-03   |                 |
|                 |              |                |               |                 |
| NORMAL LIER COM | 40149666     |                |               |                 |
| NORMALIZED COV  | AK I ANC C S |                |               |                 |
|                 | -            |                |               |                 |
| U,V             | -0.09134     | -0.06349       | -0.08241      | -0.06289        |
| U.W             | -0.17455     | -0.34409       | -0.35950      | -0.31474        |
| U.T             | 0.29932      | 0.58344        | 0.56328       | 0.65821         |
| V.W             | 0.05854      | 0.03950        | 0.01514       | 0.06379         |
| V, T            | -0.74534     | -0.06432       | -0.06103      | -0.13927        |
| W.T             | -0.18769     | -0.34149       | -0.35645      | -0.26246        |
|                 |              |                |               |                 |

RUN NO. 818 16M 11-02-62 0046-0202 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| M        | U,V                | U.W                | U• T              | V, H               | V. T               | W, T               |
|----------|--------------------|--------------------|-------------------|--------------------|--------------------|--------------------|
|          | 0.67903<br>10E-01  | 0.42008<br>10E-01  | 0.31444<br>10E-01 | 0.29862<br>10E-01  | 0.22352<br>10E-01  | 0.13828<br>10E-01  |
| 0        | 082598             | 359463             | .563098           | .015182            | 061136             | 356426             |
| ĭ        | 063308             | 266634             | .479016           | 010628             | 053429             | 231854             |
| 2        | 031320             | 118311             | .331790           | 017197             | 045302             | 085471             |
| 3        | 013462             | 016071             | .206266           | 008043             | 036067             | .000823            |
| 4        | 010139             | .028174            | •123430           | .003355            | 027142             | .045309            |
| 5        | 018415             | .045419            | .063590           | .015791            | 026932             | .060622            |
| 6        | 029469             | .042065            | .023500           | .036221            | 036414             | .050028            |
| 7        | 032246             | .040020            | 005683            | .039374            | 036131             | .046911            |
| 9        | 026175<br>009937   | .030940<br>.020257 | 022841<br>033441  | .025224<br>.006377 | 025197<br>006286   | .044261            |
| 10       | .010920            | .015461            | 041165            | 025893             | .022724            | .010559            |
| 11       | .028576            | .013157            | 053530            | 031027             | .039515            | .004054            |
| 12       | .040559            | .020825            | 068061            | 038100             | .045127            | .003269            |
| 13       | .047566            | .033457            | 083413            | 034263             | .038963            | .014098            |
| 14       | .044416            | .039717            | 094813            | 028807             | .031631            | .028490            |
| 15       | .045946            | .030232            | 095101            | 003036             | .024141            | .029818            |
| 16       | . 050717           | .011785            | 086365            | .009140            | .023355            | .025810            |
| 17       | .061042            | 003177             | 084808            | .016885            | .032997            | .014962            |
| 18       | .065228            | 001694             | 088296            | .007667            | .037711            | .007606            |
| 19       | .059271            | .009283            | 093717            | .008051            | .036223            | • 009482           |
| 20       | .039987            | .017804            | 092504            | .001980            | .036083            | .014200            |
| 21       | .022489            | .016280            | 094958            | .002348            | .033082            | .015274            |
| 22       | .009254            | .020654            | 096536            | 000264             | .027881            | .006912            |
| 23       | .006473            | .033605            | 096324            | .004716            | .019740            | .013081            |
| 24       | .005302            | .039192            | 099724            | .008104            | .012159            | .014659            |
| 25       | .009605            | .045618            | 102122            | 000621             | .018419            | .017401            |
| 26       | .012821            | .046517            | 106604            | .000591            | .027457            | .019966            |
| 27       | .013438            | .038774            | 098781            | .007253            | .029845            | .024468            |
| 28<br>29 | .008189<br>.000453 | .033713<br>.033491 | 088109<br>070753  | .003846<br>000284  | .019694<br>.009766 | .025777<br>.020144 |
| 30       | - 005055           | 027422             | - 043021          | 004573             | 006724             | .015281            |
| 30       | 005055             | .027423            | 043821            | .006573            | 027605             | .007812            |
| 31<br>32 | 016788<br>035634   | .010719<br>004702  | 013955<br>.010335 | .012027<br>.020460 | 041721             | .001926            |
| 33       | 056538             | 015211             | .022463           | .019139            | 050802             | 009891             |
| 34       | 072007             | 012951             | .026785           | .010464            | 053936             | 014921             |
| 35       | 077928             | 017290             | .030644           | .002288            | 045447             | 013133             |
| 36       | 073476             | 012296             | .025204           | .013732            | 042902             | 015049             |
| 37       | 059599             | 002073             | .015999           | .039105            | 034964             | 013343             |
| 38       | 044269             | .005532            | .009311           | .031047            | 025749             | 005480             |
| 39       | 037316             | 001420             | .017506           | .001906            | 021214             | 009533             |
| 40       | 033059             | 013641             | .025981           | 014392             | 020775             | 009470             |
| 41       | 030098             | 022056             | .026872           | 017275             | 020547             | 003510             |
| 42       | 018530             | 020096             | .025259           | 011358             | 017639             | 005617             |
| 43       | 011508             | 008333             | .014423           | 010679             | 008860             | 009097             |
| 44       | 008850             | .019167            | 004172            | 011372             | .002777            | .000869            |
| 45       | .000899            | .031554            | 016508            | 003514             | .008627            | .013700            |
| 46       | .012697            | .034335            | 021726            | 009103             | .017428            | .023327            |
| 47       | .028285            | .030774            | 023262            | 018422             | .023101            | .033496            |
| 48       | .040881            | .017634            | 023814            | 017162             | .034576            | .019823            |
| 49       | .044167            | 006336             | 022784            | 022747             | .044753            | 000619             |
| 50       | .039730            | 020625             | 023678            | 020868             | .042834            | 015166             |
| 51       | .030546            | 023784             | 023261            | 020042             | .041932            | 018686             |
| 52       | .031101            | 013834             | 020490            | 022259             | .035914            | 014927             |
| 53       | .038856            | 007252             | 016578            | 022927             | .022302            | 008843             |
| 54       | .028454            | 006122             | 017681            | 016136             | .006709            | 009085             |
| 55       | .010408            | 000136             | 020526            | 002843             | 008547             | 006962             |
| 56       | 012061             | .001499            | 021248            | .011348            | 019064             | 002966             |
| 57       | 026623             | 001130             | 012238            | .014043            | 021363             | .001907            |
| 58       | 024177             | .001201            | 003075            | .009554            | 018125             | .005124            |
| 59       | 016882             | .003742            | .000387           | .013269            | -1011143           | .009284            |
| 60       | 007711             | 003200             | 001046            | .020521            | .001174            | .018049            |

MUN NO. 81B 16M 11-02-62 0046-0202 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| н  | U.V     | U,W     | U,T     | V, W     | V.T     | W. T    |
|----|---------|---------|---------|----------|---------|---------|
|    | 0.67903 | 0.42008 | 0.31444 | 0.29862  | 0.22352 | 0.13828 |
|    | 10E-01  | 10E-01  | 10E-01  | 10E-01   | 10E-01  | 10E-01  |
| 1  | 017732  | 013539  | .053945 | 016704   | 011074  | 031659  |
| 2  | 021729  | 005054  | .079426 | 024571   | 013633  | 048096  |
| 3  | 020401  | 004064  | .094724 | 019199   | 017830  | 046393  |
| 4  | 015930  | 009600  | .100936 | 003492   | 019119  | 042207  |
| 5  | 019997  | 021026  | -100249 | -017447  | 013609  | 029676  |
| 6  | 023863  | 031367  | .090767 | .004144  | 011747  | 017372  |
| 7  | 019799  | 028389  | .074250 | 010128   | 021663  | 009498  |
| 8  | 014651  | 016657  | .065226 | 024677   | 025314  | 005900  |
| 9  | 008401  | 006696  | .053961 | 020001   | 020520  | .005840 |
| 10 | 000537  | 008664  | .042767 | 005444   | 015162  | .015123 |
| 11 | .002975 | 017628  | .032888 | .012028  | 022097  | .014591 |
| 12 | .001817 | 025693  | .030858 | .014283  | 030344  | .019634 |
| 13 | .005061 | 024406  | .032033 | .002677  | 029450  | .029564 |
| 14 | .008708 | 028762  | .030110 | .004148  | 021698  | .039225 |
| 15 | .017249 | 027840  | .025047 | .025707  | 017272  | .030000 |
| 16 | .005608 | 016231  | .010546 | .017021  | 006412  | .019884 |
| 17 | 012685  | 004533  | .000108 | 008588   | .007129 | .012975 |
| 18 | 023043  | .007587 | 005862  | 029940   | .017420 | .002265 |
| 19 | 017280  | .018400 | 005485  | 021989   | .014981 | 014695  |
| 20 | .004772 | .021788 | 000347  | 003254   | .008932 | 025015  |
| 21 | .030806 | .007687 | .009114 | .016427  | .010757 | 024168  |
| 22 | .037585 | .001950 | .007857 | .025355  | .012129 | 022208  |
| 23 | .030059 | .008479 | .001182 | .026256  | .010503 | 007687  |
| 24 | .020698 | .005753 | 007000  | . 022055 | .011160 | .009940 |
| 25 | .018810 | 010265  | 011996  | .012363  | .013705 | .021454 |
| 26 | .023350 | 018093  | 023234  | .015242  | .007650 | .033788 |
| 27 | .013684 | 013896  | 033773  | .009951  | .000879 | .045153 |
| 28 | 001823  | 004286  | 042891  | .001272  | 000728  | .038514 |
| 29 | 006142  | .000312 | 044618  | .007595  | .005880 | .019293 |
| 30 | 013052  | .006264 | 044511  | 003390   | .022284 | .006162 |
| 31 | 022249  | .015445 | 041224  | 007091   | .030657 | 004539  |
| 32 | 016848  | .017306 | 025907  | .004304  | .028305 | 020316  |
| 33 | 020678  | .017453 | 001763  | 004945   | .022062 | 025761  |
| 34 | 033426  | .020260 | .014202 | 030024   | .017060 | 024934  |
| 35 | 027865  | .021752 | .017589 | 039985   | .012027 | 019716  |
| 36 | 017400  | .013842 | -018845 | 026910   | .010006 | 003126  |
| 37 | 014660  | .001601 | .019540 | 002511   | .010996 | .009182 |
| 38 | 007133  | 007030  | .016166 | .014369  | .002471 | .017967 |
| 39 | 000860  | 005895  | .019388 | .010471  | 004956  | .020824 |
| 40 | 009930  | 000510  | .025041 | .004837  | 010824  | .012259 |
| 41 | 016097  | 005150  | .029290 | .000327  | 013286  | 006944  |
| 42 | 024836  | 007565  | .033995 | 003667   | 015319  | 017761  |
| 43 | 019092  | 003088  | .032511 | .011549  | 014439  | 009722  |
| 44 | 015239  | 001590  | .024670 | .014944  | 010649  | 010152  |
| 45 | 011790  | .001162 | .019239 | •001777  | 002833  | 008715  |
| 46 | .003395 | 008345  | .015972 | .008002  | 003236  | 009429  |
| 47 | .019317 | 018127  | .009575 | .012433  | 007950  | 004609  |
| 48 | .029739 | 028679  | .004564 | .012612  | 017287  | .011380 |
| 49 | .041464 | 029762  | 003835  | .006843  | 029784  | .019428 |
| 50 | .030727 | 017200  | 014221  | 001286   | 026217  | .013910 |
| 51 | .011941 | .000622 | 023191  | 014893   | 006211  | .000720 |
| 52 | .004256 | .016988 | 028118  | 015625   | .007238 | 012392  |
| 53 | .003896 | .022238 | 019926  | 006524   | .013790 | 024362  |
| 54 | .007281 | .016215 | 012822  | 006283   | .015006 | 021424  |
| 55 | .007549 | .008264 | 009682  | 011142   | .014851 | 009066  |
| 56 | .007538 | 003796  | 007039  | 007079   | .018512 | 014108  |
| 57 | .008925 | 002381  | 003013  | .008050  | .021537 | 017759  |
| 58 | .012049 | .002529 | 006042  | -024165  | .017375 | 001638  |
| 59 | .003377 | .004390 | 013653  | .026691  | .013454 | .021335 |
| 60 | .003045 | .012426 | 030149  | .013917  | .011071 | .030388 |

RUN NO. 818 16M 11-02-62 0046-0202 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| H        | U                  | V                  | ₩                  | T                  |
|----------|--------------------|--------------------|--------------------|--------------------|
|          | 0.95523            | 0.48270            | 0.18474            | 0.10351            |
|          | 10E-01             | 10E-01             | 10E-01             | 108-01             |
| •        |                    |                    |                    |                    |
| 0        | 1.000000           | 1.000000           | 1.000000           | 1.000000           |
| 1 2      | .762632<br>.487456 | .650053<br>.282452 | •507175<br>•113440 | .760452<br>.472124 |
| 3        | .293116            | .094701            | 057630             | .281399            |
| 4        | .173875            | .019555            | 123204             | .151288            |
| 5        | .108306            | 018319             | 121111             | .060436            |
| 6        | •053212            | 052141             | 080562             | .004455            |
| 7        | .002063            | 082858             | 091969             | 031466             |
| 8        | 037449             | 096056             | 100729             | 053274             |
| 9        | 075121             | 090330             | 058696             | 066969             |
| 10       | 103668             | 084653             | 017137             | 068026             |
| 11       | 120013             | 069881             | .001494            | 065907             |
| 12       | 127723             | 062163             | 012367             | 080408             |
| 13       | 137363             | 052124             | 045252             | 103021             |
| 14       | 152779             | 038543             | 050926             | 111199             |
| 15       | 158562             | 047506             | 028217             | 112389             |
| 16       | 156604             | 070073             | 005382             | 116037             |
| 17       | 150763             | 088131             | 000234             | 115893             |
| 18       | 150695             | 085160             | 000155             | 121689             |
| 19       | 153560             | 081907             | 011621             | 129753             |
| 20       | 150097             | 090732             | 021837             | 137004             |
| 21       | 138879             | 090987             | 021083             | 146750             |
| 22       | 130752             | 071032             | 002317             | 153458             |
| 23       | 128091             | 049941             | 043981             | 163822             |
| 24       | 133182             | 054309             | ~.067754           | 167476             |
| 25       | 143855             | 078638             | 069605             | 161345             |
| 26       | 147629             | 102224             | 057596             | 151159             |
| 27       | 141545             | 115445             | 051045             | 139128             |
| 28       | 117291             | 120578             | 039066             | 123092             |
| 29       | 093066             | 094877             | 025389             | 094827             |
| 30       | 059253             | 057214             | 017394             | 062600             |
| 31       | 017977             | 020940             | 007255             | 033245             |
| 32       | <b>.</b> 013592    | .008903            | .004525            | 013089             |
| 33       | .042843            | .025481            | .021037            | 001857             |
| 34       | .064913            | .032528            | .025170            | 003242             |
| 35       | .078096            | .033688            | .005802            | 005146             |
| 36       | .077085            | .031668            | .010375            | 005656             |
| 37       | .056449            | .037144            | 005765             | 004177             |
| 38       | .047930            | .042490            | 024392             | .001298            |
| 39       | .052311            | .051435            | 018724             | •006954            |
| 40       | .048694            | .054079            | 010168             | .015774            |
| 41       | .047242            | .048398            | .002536            | .024648            |
| 42       | .032418            | .032834            | .012878            | .036653            |
| 43       | .001246            | .032160            | .005250            | .045812            |
| 44       | 035435             | .018512            | 012269             | .048317            |
| 45       | 059946             | 003065             | 005966             | .039422            |
| 46       | 073617             | 013726             | 014267             | .024495            |
| 47       | 072662             | 021146             | 037678             | .006779            |
| 48       | 059604             | 037341             | 019374             | .000821            |
| 49       | 051266             | 047743             | 007281             | .008219            |
| 50       | 037902             | 033539             | .015028            | .007654            |
| 51       | 020851             | 013970             | .031489            | 003733             |
| 52       | 016832             | 002013             | .027052            | 009152             |
| 53<br>54 | 014227<br>021681   | .005036            | .000509            | 009788             |
| 54       | 021681             | .017738            | 003778             | 012768             |
| 55       | 031747             | .021097            | .011727            | 008118             |
| 56       | 031199             | .027274            | .027987            | 005744             |
| 57       | 016043             | .020050            | .024692            | 002831             |
| 58<br>59 | 001787<br>.004932  | .000046<br>011970  | .012171<br>005590  | 000493             |
| ,,       |                    | .011770            | -1009970           | .002725            |
| 60       | .015934            | 008729             | 004694             | .005628            |

RUN NC. BIB 16M 11-02-62 0046-0202 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| CO | CE | • | • | TO |  |
|----|----|---|---|----|--|
|    |    |   |   |    |  |

| K         | U,V         | U, W    |          |                     |                  |                    |
|-----------|-------------|---------|----------|---------------------|------------------|--------------------|
|           | •           | 0, #    | U, T     | V.H                 | V, T             | W. T               |
|           | 10E-02      | 10E-03  | 10E-02   | 10E-03              | 10E-03           | 105-03             |
| 0         | .002277     | 033044  |          |                     | 101 03           | 10E-03             |
| 1         | .027261     | 022966  | .010306  | .016500             | 003240           | 002344             |
| 2         | 032559      | 502889  | .132655  | 000523              | 039457           | 089689             |
| 3         | 151841      | 777183  | .194503  | 049127              | 184263           | 163324             |
| 4         | 129579      | 957741  | .242624  | .055887             | 454034           | 236287             |
| •         | 129579      | 782048  | .183353  | •131572             | 358918           | 225108             |
| 5         | 021080      | 695566  | .119261  | 0507/1              |                  |                    |
| 6         | 009179      | 975401  | -122560  | .050761             | 062709           | 210949             |
| 7-8       | .022409     | 959801  | .106016  | • 042251            | 067608           | 270282             |
| 9-11      | 010752      | 753202  | .069476  | 085509              | 021747           | 268846             |
| 12-15     | 019460      | 723274  | .047912  | -•223196<br>•049751 | -052477          | 284097             |
| 16-20     | 022100      |         |          | ********            | 034806           | 213572             |
| 21-27     | 023189      | 357864  | .022516  | .071688             | 043746           | - 122102           |
| 28-36     | 008201      | 247013  | .014498  | .013415             | .010943          | 132183             |
| 37-47     | 003458      | 101448  | .005970  | .032231             | 000269           | 087237             |
| 48-60     | 001711      | 040753  | .002064  | .027089             | 008322           | ~- 046968          |
| 40-60     | 000144      | 019831  | .001333  | .016775             | 001695           | 033275<br>018191   |
|           |             |         |          |                     |                  | • 0 1 0 1 7 1      |
|           |             |         |          |                     |                  |                    |
| QUADRATU  | RE SPECTRUM |         |          |                     |                  |                    |
| K         | U,V         |         |          |                     |                  |                    |
|           | 0,4         | U. W    | U, T     | V. W                | V,T              | W, T               |
|           |             |         |          |                     |                  |                    |
|           | 10E-03      | 10E-03  | 10E-03   | 10E-03              |                  |                    |
|           |             |         | .00      | 105-03              | 10E-03           | 10E-03             |
| 1         | 066403      | 161527  | .346754  | .053374             | 004070           |                    |
| 2         | .069374     | 237667  | -450891  | .029185             | -006879          | .054869            |
| 3         | 166628      | 328425  | .768957  | 034601              | 099294           | .030808            |
| 4         | 575933      | 214328  | .731665  | 119389              | 224035           | 014271             |
| 5         | 322639      | 125645  | .397659  | 068804              | 161909           | 047890             |
|           |             |         |          | *********           | 059121           | 058664             |
| 6         | 005378      | 091855  | .402915  | .035348             | 040367           |                    |
| 7-8       | 273627      | .108440 | .399704  | 096021              |                  | - 097038           |
| 9-11      | 090045      | 119579  | .186758  | .026214             | .047139          | 175360             |
| 12-15     | 054800      | .087386 | .070460  | 068505              | 039057           | 009368             |
| 16-20     | .005883     | .000368 | .042709  | 078539              | 016238<br>014575 | 056234             |
| 21 22     |             |         |          | ,                   | 014575           | 014747             |
| 21-27     | 083596      | 055250  | .014848  | .007750             | .003737          | 000447             |
| 28-36     | 013812      | 022245  | .022880  | .002041             | 003525           | 008647             |
| 37-47     | 007116      | 016634  | .007667  | 012203              | 004757           | 004711             |
| 48-60     | 003198      | 004953  | .004270  | .013007             | 002071           | .001287            |
|           |             |         |          |                     | .002071          | .001812            |
| POWER SPE | CTRUM       |         |          |                     |                  |                    |
|           |             |         |          |                     |                  |                    |
| K         | u           | 1       | V        | w                   |                  | _                  |
|           |             |         |          | -                   |                  | T                  |
|           | 10E-        | 01      | 100 00   |                     |                  |                    |
|           | 106-        | V.      | 10E-02   | 10E-                | 03               | 10E-02             |
| 0         | .004        | 784     | .013433  |                     |                  |                    |
| 1         | .058        |         | 166982   | • 030               |                  | .004582            |
| 2         | -087        |         | • 266903 | • 362               |                  | .065588            |
| 3         | .116        | 978     | •352858  | . 496               |                  | .098064            |
| 4         | .094        | 437     | .279200  | -610                |                  | .115417            |
| _         |             |         |          | • 582               | 116              | .084626            |
| 5         | .061        |         | .226761  | . 595               | 773              | 041434             |
| 6         | .061        |         | -281888  | .776                |                  | .061624            |
| 7-8       | •049        |         | .260802  | .891                |                  | .062648            |
| 9-11      | •033        |         | .222026  | . 799               |                  | .061348            |
| 12-15     | .023        | 906     | .139441  | .725                |                  | •041705<br>•028612 |
| 16-20     | ^*-         |         |          | 0.23                | •                | .028612            |
| 21-27     | •0177       |         | .122710  | - 5267              | 115              | .017005            |
| 28-36     | -0106       |         | .091056  | - 4446              | 70               | .011561            |
| 37-47     | .0056       |         | .050999  | - 2595              | 23               | .007506            |
| 48-60     | -0041       |         | .032021  | - 2247              | 24               | .004356            |
|           | •0027       | 17      | -020589  | - 1461              | .95              | .002590            |
|           |             |         |          |                     |                  |                    |

RUN NO. 81B 16M 11-02-62 0046-0202 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

| м        | U•V      | U, W    | U, T     | V.W      | V.T     | W. T     |
|----------|----------|---------|----------|----------|---------|----------|
|          | 0.29718  | 0.14057 | 0.15832  | 0.82646  | 0.93085 | 0.44029  |
|          | 10E-01   | 10E-01  | 10E-01   | 10E-02   | 10E-02  | 10E-02   |
| 0        | 062921   | 314787  | .658349  | .063803  | 139310  | 262423   |
| ĭ        | .028085  | .003027 | -160385  | . 058145 | 028723  | .019852  |
| 2        | .085736  | .017149 | .008723  | .037303  | .039625 | 000283   |
| 3        | 066257   | .046095 | .008516  | . 058465 | 055586  | .021545  |
|          |          |         |          | 002308   | 070374  | .001182  |
| 4        | 061934   | .044374 | 001669   | 002308   | 010374  | .001102  |
| 5        | .036756  | .026074 | 074825   | 099055   | .042092 | .024131  |
| 6        | 015501   | 028963  | 005017   | 038295   | 043342  | 000315   |
| 7        | .006787  | .002587 | .040532  | 002405   | 023077  | 041050   |
| 8        | 010631   | .040547 | 048808   | 054555   | 008637  | .034675  |
| 9        | 076746   | .117112 | 105353   | .035008  | 079472  | .110596  |
| 10       | 061799   | .027689 | 017494   | .040059  | 092427  | .050041  |
| ii       | .006919  | .026420 | 015586   | 008914   | 009320  | .075981  |
| 12       | .037383  | .024547 | 021419   | 062901   | .035429 | .035028  |
|          | .009353  | 006327  | .003966  | 050843   | .038251 | 023558   |
| 13       |          |         | 030477   | 038851   | .002680 | .025519  |
| 14       | .033641  | .022582 | 030411   | 036631   | •002660 | .023319  |
| 15       | .014050  | 002618  | .033957  | 023537   | .012093 | 032280   |
| 16       | 064754   | .011202 | .015273  | .088154  | 065347  | .013700  |
| 17       | .023331  | 047281  | .065143  | 039945   | .022083 | 014516   |
| 18       | .052260  | .000905 | .066619  | 009316   | .070218 | 031247   |
| 19       | 042203   | .011151 | .012720  | .028943  | 016676  | .001389  |
| 17       | 042203   | .011171 | .012120  | *020743  | .010010 | ******** |
| 20       | 076326   | 005532  | 012108   | .042668  | 030644  | 054226   |
| 21       | 066841   | .033770 | .013086  | .013226  | .001072 | .049527  |
| 22       | 096993   | 005753  | .000530  | .062688  | 017232  | 017394   |
| 23       | 064218   | 040250  | 006660   | .006022  | 027647  | 101831   |
| 24       | 003636   | 029441  | 015845   | 087526   | 004410  | 043823   |
| 25       | 001149   | 000043  | 027307   | 032997   | 009114  | .000732  |
| 25       | .001168  | .009863 | .027307  | .009045  | .006240 | 007010   |
| 26       | 072949   | 056175  | 043377   |          |         |          |
| 27       | 010940   | .004374 | 072714   | 021011   | .027264 | .040545  |
| 28       | .032404  | 035410  | 009130   | 012905   | .039076 | .015044  |
| 29       | .041453  | .007383 | 015127   | 044155   | .047892 | 026074   |
| 30       | .001033  | 066064  | .060157  | 032951   | .062943 | 074643   |
| COSPECTR | JM       |         |          |          |         |          |
| K        | U.V      | U, W    | U, T     | V. W     | V.T     | W, T     |
|          |          |         |          |          |         |          |
|          | 10E-03   | 108-03  | 10E-03   | 10E-03   | 10E-03  | 10E-04   |
| 0        | 145134   | .058332 | .190171  | 001104   | 095457  | .115377  |
| i        | 090215   | .081747 | .625192  | .033019  | 253627  | .181533  |
| 2        | .021309  | 131113  | .491828  | .083060  | 077342  | 484644   |
| 3        |          | 253507  |          | . 130425 | .007999 | 931302   |
|          | .072261  |         | .708215  |          |         |          |
| 4        | .350280  | 229703  | .680475  | .089552  | .046952 | 587149   |
| 5        | .120584  | 126943  | .472778  | . 085646 | 016534  | 097965   |
| 6        | 129979   | 067031  | .445027  | .146511  | 081803  | .114811  |
| 7        | 037078   | 142618  | .518839  | .118350  | 095497  | 204511   |
| 8        | .056079  | 225996  | .503496  | .030019  | 046227  | 668369   |
| 9-11     | .250988  | 326017  | .520959  | 075483   | .034025 | 667532   |
| 12-14    | 300587   | 096216  | .261163  | 035016   | 089382  | 174355   |
| 15-21    | 454000   | 190893  | .467031  | .048390  | 136410  | 575442   |
| 22-30    | .063869  | 280703  | .363002  | 024323   | .008865 | 831660   |
| £2-3U    | • 003663 |         | . 303002 |          |         | 1031000  |

RUN NC. 81B 16M 11-02-62 0046-0202 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

| M         | U,V               | U, W               | U.T               | V.H              | V.T              | W, T             |
|-----------|-------------------|--------------------|-------------------|------------------|------------------|------------------|
|           | 0.29718           | 0.14057            | 0.15832           | 0.82646          | 0.93085          | 0.44029          |
|           | 108-01            | 10E-01             | 10E-01            | 10E-02           | 10E-02           | 10E-02           |
|           |                   |                    |                   |                  |                  |                  |
| 1         | 030283            | 065961             | .125586           | 008922           | 024271           | .024693          |
| 2         | .019424           | 013383             | .043277           | .054923          | .008819          | .013390          |
| 3         | 024816            | 032810             | .039697           | 028517           | .042609          | .044924          |
| 4         | 037487            | 007546             | .092609           | .022340          | .003850          | .000367          |
| 5         | .036002           | 040053             | .028921           | 006425           | 018920           | 001326           |
| 6         | .028845           | .013292            | 006388            | .012653          | 007773           | 031816           |
| 7         | 027543            | .039639            | .020800           | 040100           | 019492           | 066393           |
| 8         | . 046444          | 054545             | .044894           | .006151          | 027427           | 008562           |
| 9         | .083473           | 070659             | 034471            | .070646          | 006367           | .010124          |
| 10        | 022834            | 022876             | •022143           | .056860          | .032735          | .012365          |
| 11        | 104311            | 048190             | .038222           | 032065           | .090743          | .023034          |
| 12        | .004350           | .000032            | .040154           | 012548           | 020431           | 019106           |
| 13        | .009119           | .067425            | 031969            | 008192           | .016877          | 036317           |
| 14        | 027752            | .053396            | 039269            | .031925          | .008568          | 032737           |
| 15        | .009242           | .077104            | 020722            | .047651          | .037344          | 033941           |
| 16        | 023054            | .024989            | 016713            | 001935           | .069156          | 046770           |
| 17        | 001417            | 023524             | 023941            | .023676          | .006141          | .026067          |
| 18        | 037813            | 023117             | .001668           | 026642           | .063317          | .042181          |
| 19        | .006296           | 042208             | 007893            | 000526           | .031534          | .052526          |
| 20        | 016384            | 038954             | .004712           | .025050          | .073298          | .044902          |
|           | 010000            | 027554             | 0117/0            | 01/0/0           | 020/22           | 040403           |
| 21        | .010898           | 027554             | 011762            | .014068          | .028432          | .049603          |
| 22<br>23  | 049562            | .051505            | .033995           | 098155           | - 006172         | 024824           |
| 24        | 027012<br>.069402 | 061195             | .050700<br>008361 | 032703<br>004260 | 008708<br>012432 | - 000055         |
| 25        | .045544           | .000642<br>.022917 | 035316            | 003857           | 009575           | 022473<br>005567 |
| 2)        | *043344           | 1022717            | 033310            | -,003831         | -,007373         | 0000001          |
| 26        | .001630           | 041315             | .000487           | 000128           | 040258           | .013053          |
| 27        | 008391            | 041539             | 025968            | .027435          | 018322           | .054218          |
| 28        | 032306            | .022012            | 031306            | 042429           | 016647           | 021626           |
| 29        | 034624            | .030664            | 027877            | 022415           | 026111           | 011472           |
| 30        | .026212           | .006214            | 002622            | .100767          | 015081           | .005501          |
| QUADRATUR | E SPECTRUM        |                    |                   |                  |                  |                  |
| K         | U,V               | U,W                | U, T              | V.W              | V,T              | W, T             |
| •         | 0,,,              | 0,4                | 0,1               | ***              | •••              | ***              |
|           | 10E-03            | 10E-03             | 10E-03            | 10E-04           | 10E-03           | 10E-04           |
| 1         | 108861            | 088234             | .170358           | .696421          | .152287          | 241008           |
| 2         | .072500           | 109371             | .227975           | . 444171         | 012439           | 243556           |
| 3         | .153007           | 180238             | .289089           | 081116           | 069684           | .077911          |
| 4         | 003130            | 069988             | .202096           | 089180           | .006919          | .249601          |
| 5         | 157912            | .108595            | .138847           | .057110          | .024227          | 003289           |
| 6         | 292834            | .002766            | .222193           | 067522           | .048304          | .266326          |
| ž         | 259418            | 248854             | .232919           | .314402          | .088459          | .790980          |
| 8         | 010002            | 221749             | .144591           | .694863          | .046269          | .458509          |
| 9-11      | .104012           | .014666            | .064094           | 048441           | 053581           | 125525           |
| 12-14     | 065130            | 027568             | .058347           | .259724          | 001570           | 019003           |
| 15-21     | 105871            | 051987             | .195843           | 112180           | 048020           | 030034           |
| 22-30     | 065012            | 100577             | .005921           | 787974           | .014811          | .212834          |
|           |                   |                    |                   |                  | · ·              |                  |

RUN NC. B1B 16M 11-02-62 0046-0202 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

| "M           | U        | V             | W                  | T        |
|--------------|----------|---------------|--------------------|----------|
|              | 0.50545  | 0.17473       | 0.39092            | 0.49590  |
|              | 10E-01   | 10E-01        | 10E-02             | 10E-02   |
| 0            | 1.000000 | 1.000000      | 1.000000           | 1.000000 |
| 1            | .272264  | .254875       | 079018             | .221658  |
| 2            | .020890  | .085940       | .028610            | .042669  |
| 3            | .068797  | .091849       | 032957             | 013906   |
| .4           | .044233  | .095753       | 153778             | 022469   |
| 5            | 090219   | 007914        | 089667             | 035287   |
| 6            | .050210  | .033887       | 028107             | 010718   |
| 7            | .082110  | .074036       | 026137             | .088181  |
| 8            | 068045   | 003330        | 077741             | .020911  |
| 9            | 090357   | .027473       | 008853             | 049398   |
| 10           | .025996  | .041471       | 018979             | .015314  |
| 11           | 001122   | .007258       | .022963            | 036795   |
| 12           | 009850   | 024272        | .011516            | 091227   |
| 13           | .014258  | 051981        | 050864             | 070041   |
| 14           | 008785   | 086979        | 095463             | 078659   |
| 15           | .031497  | 048475        | .045908            | .046643  |
| 16           | .055664  | -041764       | 043010             | 031756   |
| 17           | .090766  | 012721        | .037501            | .048836  |
| 18           | .030003  | 049781        | .098108            | .020223  |
| 19           | 007309   | 027749        | 018227             | 044557   |
| 20           | 043879   | 063139        | 037641             | 024812   |
| 21           | 020629   | 128747        | 044517             | 028113   |
| 22           | 051235   | 057909        | 020023             | .005746  |
| 23           | 077430   | 090666        | .006403            | 012690   |
| 24           | 105515   | 145929        | •131205            | 027938   |
| 25           | 038316   | 149997        | 088257             | •007925  |
| 26           | 026099   | 151540        | .084363            | 099490   |
| 27           | 071819   | 155420        | 035358             | 095769   |
| 28           | 013612   | 094293        | 080920             | 038914   |
| 29           | 099125   | 135964        | .054500            | .037345  |
| 30           | 024969   | 125886        | 016815             | .065860  |
| POWER SPECTR | UM       |               |                    |          |
| K            | υ        | v             | W                  | T        |
|              | 10E-02   | 10E-02        | 10E-03             | 10E-03   |
| 0            | .144414  | .054330       | .003529            | .096081  |
| 1            | .475506  | .221714       | .047979            | .388927  |
| 2            | .265275  | .123875       | .083270            | •279164  |
| 3            | .297633  | .089694       | •131525            | .267381  |
| 4            | .315654  | .079853       | .153613            | .215559  |
| 5            | •224736  | .068703       | •162635            | .183519  |
| 6            | •205231  | .081306       | .183005            | .236257  |
| 7            | .238893  | .086204       | • 193643           | .307114  |
| 8            | .226329  | .066674       | .140678            | • 291254 |
| 9-11         | .235796  | .061330       | 149890             | .215631  |
| 12-14        | •136605  | .056345       | 002701             | 15/35    |
| 15-21        | •237711  | .072737       | .093701<br>.181286 | .156756  |
| 22-30        | .150072  | .064264       |                    | .188197  |
|              | 1120012  | • 0 0 7 2 0 7 | .282193            | •207327  |

RUN NO. 818 40M 11-02-62 0046-0202 EST

#### GROSS STATISTICS

| CLEAR<br>Stable<br>Land | WIND SP<br>Sigma a<br>Sigma e | 4.5 DEG                        | WIND DIRE<br>SOLAR RAC<br>NET RADIA |                                    |
|-------------------------|-------------------------------|--------------------------------|-------------------------------------|------------------------------------|
|                         | WITH NO                       | WITH 301 POINT<br>RUNNING MEAN | WITH 61 POINT<br>RUNNING MEAN       | 301 PT RUN MEAN<br>10 PT BLOCK AVG |
| VARIANCES               |                               |                                |                                     |                                    |
| U<br>V                  | 0.15032E-00<br>0.23664E-00    | 0.27951E-01<br>0.13253E-01     | 0.20297E-01<br>0.10110E-01          | 0.14148E-01<br>0.54334E-02         |
| ŭ                       | 0.55709E-02                   | 0.15255E-01<br>0.55628E-02     | 0.10110E-01<br>0.50953E-02          |                                    |
| Ť                       | 0.76182E-01                   | 0.83003E-02                    | 0.65657E-02                         | 0.15260E-02<br>0.43914E-02         |
| •                       | 0.101026-01                   | 0.630036-02                    | 0.030375-02                         | 0.439146-02                        |
| ε                       | 0.19626E-00                   | 0.23388E-01                    | 0.17751E-01                         |                                    |
| GUSTINESS RAT           | 108                           |                                |                                     |                                    |
| U                       | 0.06356                       | 0.02741                        | 0.02336                             | 0.01950                            |
| ٧                       | 0.07975                       | 0.01887                        | 0.01648                             | 0.01208                            |
| W                       | 0.01224                       | 0.01223                        | 0.01170                             | 0.00640                            |
| COVARIANCES             |                               |                                |                                     |                                    |
| U.V                     | 0.48505E-01                   | 0.26245E-02                    | 0.12705E-02                         | 0.16405E-02                        |
| U.W                     | 0.18059E-03                   | -0.35741E-02                   | -0.33118E-02                        | -0.77734E-03                       |
| U.T                     | -0.82388E-02                  | 0.95153E-02                    | 0.69307E-02                         | 0.56252E-02                        |
| V,W                     | 0.13314E-02                   | -0.61789E-03                   | -0.57614E-03                        | 0.31802E-04                        |
| V,T                     | -0.90642E-01                  | 0.22477E-02                    | 0.14656E-02                         | 0.12330E-02                        |
| W, T                    | -0.32805E-02                  | -0.16594E-02                   | -0.15373E-02                        | -0.44144E-03                       |
| WE                      | 0.13736E-04                   | 0.38992E-03                    | 0.28023E-03                         |                                    |
| NORMALIZED CO           | VARIANCES                     |                                |                                     |                                    |
|                         |                               |                                |                                     |                                    |
| U, V                    | 0.25718                       | 0.13636                        | 0.08869                             | 0.18711                            |
| U.M                     | 0.00624                       | -0.28663                       | -0.32566                            | -0.16729                           |
| U,T                     | -0.07699                      | 0.62471                        | 0.60037                             | 0.71365                            |
| V.W                     | 0.03667                       | -0.07196                       | -0.08027                            | 0.01104                            |
| V, T                    | -0.67508                      | 0.21431                        | 0.17989                             | 0.25242                            |
| W,T                     | -0.15924                      | -0.24421                       | -0.26579                            | -0.17053                           |

REPORT RUNNING MEAN, NO BLOCK AVERAGING

|     |   |              | • •      |                   |                   |   |
|-----|---|--------------|----------|-------------------|-------------------|---|
| H   | U• <b>v</b>                             | U, W         | U,T      | V, W              | V, T              | W, T                                    |
|     | 0.1432                                  | 5 0.10174    | 0.11546  | 0 71700           |                   |   |
| 0   | 10E-01                                  | 106-01       | 108-01   | 0.71799<br>10E-02 | 0.81481<br>10E-02 | 0.57870<br>10E-02                       |
| ĭ   | -088579                                 |              | -600067  | 079998            | 170000            |   |
| ż   | .067622                                 | 0 40 7 6 1 7 |          | 021861            |                   | - 107011                                |
|     | • 043088                                |              | .341643  |                   | • 135623          |   |
| 3   | • 026867                                | • 015036     |          |                   | • 082240          | 061737                                  |
| 4   | .018033                                 | • 052636     | •222221  | .023846           | .044846           | 003039                                  |
|     |   | •072036      | .135231  | • 007895          | .026859           |   |
| 5   | .013866                                 |              |          |                   |                   | •020101                                 |
| 6   | •019250                                 |              | •082558  | .002043           | .025108           | 024424                                  |
| 7   |   | - 45.051     | .052548  | -004115           |                   | • 036638                                |
| å   | -037648                                 | ******       | .028986  | 017267            | -024106           | • 028996                                |
|     | • 045246                                | • 044067     | .004204  |                   | .033879           | • 021095                                |
| 9   | • 044125                                | -029942      | 007770   | 029011            | .038799           | .019610                                 |
|     |   | -            |          | 017628            | • 037686          | .016249                                 |
| 10  | - 050986                                | .004299      | - 000704 |                   |                   |   |
| 11  | -048041                                 | 023078       | 002786   | 020711            | .043048           | 002866                                  |
| 12  | .032333                                 |              | 001456   | 009696            | .051269           | 004365                                  |
| 13  | .024846                                 | 024175       | 007398   | .011381           | .050026           |   |
| 14  |   | 013436       | 018900   | .001227           | .027469           | .000725                                 |
|     | •019843                                 | 014443       | 039777   | 025881            |                   | -011460                                 |
| 16  |   |              |          | 1053081           | .024303           | •021447                                 |
| 15  | .000478                                 | 013280       | 056019   | - 02/535          |                   |   |
| 16  | 006207                                  | 016265       | 059659   | 024572            | .019028           | .021101                                 |
| 17  | 002559                                  | .005372      |          | 017404            | .012245           | .012165                                 |
| 18  | 010318                                  |              | 070075   | 022029            | •006500           | .015892                                 |
| 19  | 020811                                  | •025720      | 094610   | 004418            | 013761            |   |
|     | *050011                                 | • 027540     | 115414   | .030811           | 038611            | .028151                                 |
| 20  | - 00001-                                |              |          |                   |                   | •031201                                 |
| 21  | 022217                                  | .035701      | 129193   | .028343           |                   |   |
|     | 018825                                  | •031691      | 137427   |                   | 039034            | <ul><li>022340</li></ul>                |
| 22  | 027654                                  | .014173      |          | .013832           | 040335            | .021370                                 |
| 23  | 027188                                  | .013903      | 138855   | •016364           | 038851            | -010758                                 |
| 24  | 026109                                  |              | 145321   | .030298           | 041079            | .002373                                 |
|     | *************************************** | •007285      | 145650   | .010038           | 046364            |   |
| 25  | 033789                                  |              |          |                   | ********          | •002168                                 |
| 26  |   | • 005294     | 133794   | .001874           | - 011311          |   |
| 27  | 045401                                  | - 006064     | 123884   | .006719           | 066361            | .004774                                 |
|     | 039194                                  | 011748       | 110830   | 002740            | 085295            | -010171                                 |
| 28  | 020438                                  | 023068       | 092630   |                   | 076683            | .000034                                 |
| 29  | 014446                                  | 012201       | 072395   | .002801           | 072288            | 001935                                  |
|     |   |              | 072395   | • 009960          | 076960            | 002648                                  |
| 30  | ~.015548                                | -008078      | 4.55     |                   |                   | *************************************** |
| 31  | 029714                                  |              | 055535   | .017221           | 064381            | - 001314                                |
| 32  | 033613                                  | .016047      | 049577   | .019105           | 050619            | 001316                                  |
| 33  |   | -024101      | 054183   | .005442           | 030041            | .011890                                 |
| 34  | 025573                                  | • 031261     | 061987   | 011789            |                   | •029916                                 |
|     | 018689                                  | • 044936     | 057664   | 009543            | 004831            | • 035573                                |
| 3.0 |   |              |          | • 00 73 43        | .008916           | .038913                                 |
| 35  | 008452                                  | .039584      | 055081   | ****              |                   |   |
| 36  | 004661                                  | .029408      |          | 017937            | •009016           | .035796                                 |
| 37  | 020403                                  | .023761      | 049644   | 009181            | 007964            | .027853                                 |
| 38  | 040954                                  |              | 044989   | 001122            | 021228            |   |
| 39  | 046998                                  | .011458      | 040600   | .012900           | 037294            | •023060                                 |
|     | • 0 7 0 7 7 6                           | 002886       | 034018   | .002343           | 049957            | .013766                                 |
| 40  | 0.20.0                                  |              |          |                   | - • 047451        | .008449                                 |
| 41  | 047012                                  | 016882       | 018213   | .007682           |                   |   |
|     | 049246                                  | 020331       | 000775   |                   | 068796            | 004159                                  |
| 42  | 050568                                  | 020939       | .017379  | 002815            | 077253            | 028900                                  |
| 43  | 048794                                  | 024776       |          | 007444            | 068405            | 036727                                  |
| 44  | 035672                                  | 024157       | -036004  | .004937           | 051350            | 036736                                  |
|     | _                                       | *024131      | .042261  | .004246           | 040622            | - 027252                                |
| 45  | 015824                                  | - 014:5-     |          |                   |                   | 027252                                  |
| 46  |   | 014655       | .053888  | 003412            | 029346            |   |
| 47  | 018889                                  | 011209       | .062491  | 003830            |                   | 022101                                  |
| 48  | 019529                                  | 015231       | .065964  | .017290           | 022143            | 025187                                  |
|     | 021353                                  | .008144      | ·048404  |                   | 015767            | 024696                                  |
| 49  | 018037                                  | -029858      | 012021   | .033723           | 015723            | 012635                                  |
|     |   | / 0 / 0      | .013021  | .021293           | 003536            | 004447                                  |
| 50  | 012683                                  | 021022       |          |                   |                   |   |
| 51  | 000904                                  | .021932      | 010133   | .025457           | 000577            | - 00000                                 |
| 52  |   | •011383      | 012413   | .022766           | .003695           | 002119                                  |
| 53  | -009511                                 | - 004669     | 007885   | .007135           |                   | 009565                                  |
|     | .003389                                 | .000328      | 005686   | .017086           | 000813            | .000348                                 |
| 54  | 012104                                  | 012930       | .005076  | 037110            | 011273            | 001188                                  |
|     |   |              |          | .027140           | ()04439           | 004165                                  |
| 55  | 016027                                  | 013486       | 01/00=   | 445               |                   | ,                                       |
| 56  | • 005261                                | 009356       | -016907  | .018944           | .004221           | • 003072                                |
| 57  | .024867                                 | - 02007      | .027697  | .017255           | .015743           |   |
| 58  | .021318                                 | 020076       | .035772  | 005969            | 025025            | 004557                                  |
| 59  |   | 021104       |          | 004212            |                   | 037855                                  |
| ,,  | •031398                                 | 007025       | .047434  | .002481           | • 036041          | 042813                                  |
| 40  |   |              |          | .002491           | • 050498          | 034462                                  |
| 60  | .042026                                 | 009915       | .051214  | 0024 : -          |                   |   |
|     |   |              | ******   | .002447           | .047634           | 017511                                  |
|     |   |              |          |                   |                   |   |
|     |   |              |          |                   |                   |   |

RUN NO. 818 40M 11-02-62 0046-0202 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| M        | U,V              | U,W                | U.T                | V.W                | V,T                | W, T               |
|----------|------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|          | 0.14325          | 0.10174            | 0.11546            | 0.71799            | 0.81481            | 0.57870            |
|          | 10E-01           | 10E-01             | 10E-01             | 10E-02             | 10E-02             | 10E-02             |
| 1        | .030739          | .003095            | .046312            | 021200             | .007678            | .035798            |
| 2        | . 029456         | .008063            | .059593            | 029813             | .007853            | .059056            |
| 3        | .030264          | 009215             | .060666            | 029843             | .009547            | .084101            |
| 4        | -026627          | 031592             | .057273            | 055146             | .024904            | .095153            |
| 5        | .009665          | 031891             | .053371            | 075048             | .028888            | •092613            |
| 6        | 013022           | 020085             | .050177            | 072184             | .030183            | .089030            |
| 7<br>8   | 034040<br>048256 | 007545<br>010900   | .042616<br>.030514 | 076470<br>085026   | .035787<br>.041645 | .087722            |
| 9        | 052361           | 026565             | .016627            | 085226             | .044912            | .084436            |
| 10       | 051998           | 031618             | .003289            | 078413             | .052661            | .082982            |
| 11       | 051413           | 008927             | 001746             | 076234             | .061601            | .060261            |
| 12       | 048265           | .005816            | 000182             | 063502             | .070542            | .036638            |
| 13       | 039912           | 003092             | .006793            | 058186             | .059627            | .022670            |
| 14       | 032317           | 014035             | .008108            | 056545             | .035571            | .026116            |
| 15       | 016489           | 020171             | .003081            | 033568             | .013280            | .038242            |
| 16       | 018011           | 020545             | .002024            | 020697             | 002784             | .044103            |
| 17       | 031385           | 029789             | .001453            | 037628             | 003728             | .045202            |
| 18       | 025452           | 026340             | .007463            | 041408             | .001122            | .035482            |
| 19       | 007711           | 023277             | .013706            | 032385             | 002695             | .027877<br>.021361 |
| 20       | .004492          | 016643             | .008533            | 019617             | .004449            |                    |
| 21       | .006780          | 011376             | .002244            | 029102             | .011790            | .017481            |
| 22       | 000511           | .005696            | 012554             | 040010             | .009179            | .026888            |
| 23       | .002776          | .015335            | 018715             | 020036             | .002684            | .021343            |
| 24<br>25 | .009169          | .005755<br>002808  | 019556<br>020382   | 001728<br>.022526  | 002481<br>012000   | .004525<br>004684  |
|          |                  | 7.2.7              |                    |                    |                    |                    |
| 26       | .008758          | 000928             | 025570             | .036984            | 018672             | 024803             |
| 27<br>28 | 010882<br>024331 | .008271<br>.021394 | 025413<br>025745   | .027669<br>.010630 | 018606<br>002427   | 040649<br>050727   |
| 29       | 028128           | .018589            | 021372             | .017808            | .008757            | 045795             |
| 30       | 017967           | 001043             | 020236             | .020700            | .004153            | 033146             |
| 31       | 009023           | 010381             | 020049             | .014003            | 013414             | 017251             |
| 32       | .003488          | .000722            | 021121             | . 020145           | 023735             | 024635             |
| 33       | .015797          | .011764            | 017803             | .028866            | 033008             | 034478             |
| 34       | .046221          | .010202            | 006439             | .037303            | 053376             | 033779             |
| 35       | .076143          | 007895             | .016493            | .052377            | 073593             | 028245             |
| 36       | .079758          | 008405             | .032757            | • 052367           | 074806             | 022019             |
| 37       | .051582          | 014157             | .035571            | .021897            | 049115             | 005881             |
| 38       | .039938          | 015760             | .020072            | .002252            | 031952             | .013260            |
| 39       | .034533          | 005393             | .013475            | 016704             | 022157             | .022396            |
| 40       | .022354          | 002165             | .013997            | 018569             | 020975             | .033279            |
| 41       | • 009536         | 008784             | .012358            | 022988             | 002646             | •031291            |
| 42       | •005200          | 010948             | .019317            | 022721             | .011374            | .017815            |
| 43       | 000667<br>008415 | 001743<br>-012792  | .017692<br>.008094 | 027771<br>002785   | .019370<br>.015587 | .007561<br>000474  |
| 45       | .006784          | .017797            | 003557             | .011447            | .008756            | 003950             |
| 46       | .031206          | .007792            | 006676             | .026035            | 008409             | 010532             |
| 47       | .028451          | 003692             | 010050             | .037508            | 024269             | 015645             |
| 48       | .022703          | 001238             | 020793             | .032702            | 017676             | 015090             |
| 49       | .009520          | .004336            | 029437             | 003770             | 008539             | 020147             |
| 50       | .006770          | 000934             | 026864             | 023322             | 001897             | 018320             |
| 51       | .018567          | 002219             | 024556             | 006872             | 000049             | 006596             |
| 52       | .024098          | 020722             | 009229             | .001851            | 002023             | 002215             |
| 53       | .007603          | 021508             | .001997            | 001586             | .004792            | 004298             |
| 54       | 015097           | 002086             | .003747            | .009527            | .026104            | 017721             |
| 55       | 015679           | •012924            | .002776            | .017589            | .039292            | 024898             |
| 56       | 018395           | .020545            | .003608            | .020630            | .041693            | 021529             |
| 57       | 022712           | .014501            | .007439            | .009444            | .042050            | 019237             |
| 58       | 038544           | .020920            | .008586            | . 004067           | .035932            | 022166             |
| 59       | 047528           | .016977            | .008378            | 012421             | .030226            | 027155             |
| 60       | 044359           | .003986            | .018238            | 010946             | .034760            | 025431             |

RUN NO. 81B 40M 11-02-62 0046-0202 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| м        | υ                                       | ٧                  | W                  | T                                       |
|----------|---|--------------------|--------------------|---|
|          | -                                       |                    |                    |   |
| •        | 0.20300                                 | 0.10109            | 0.50993            | 0.65674                                 |
|          | 10E-01                                  | 10E-01             | 10E-02             | 10E-02                                  |
|          |   |                    |                    |   |
| 0        | 1.000000                                | 1.000000           | 1.000000           | 1.000000                                |
| 1        | .693080                                 | .579804            | .505894            | .784696                                 |
| 2        | .400654                                 | .230076            | .193503            | .524052                                 |
| 3        | .206737                                 | .099922            | .086937            | .345196                                 |
| 4        | .101309                                 | .051530            | .041248            | .221916                                 |
| 5        | .035420                                 | .007317            | 011726             | .149466                                 |
| 6        | .009867                                 | 026336             | 014522             | .094234                                 |
| 7        | 020517                                  | 011897             | 029706             | .050364                                 |
| 8        | 051317                                  | .003673            | 043436             | .010681                                 |
| ğ        | 052435                                  | .020062            | 051650             | 020728                                  |
|          | 332.55                                  |                    |                    |   |
| 10       | 038565                                  | .023681            | 037479             | 038505                                  |
| 11       | 025273                                  | .008445            | 017325             | 058438                                  |
| 12       | 034671                                  | 001948             | 024697             | 069358                                  |
| 13       | 052350                                  | 044469             | 031373             | 084206                                  |
| 14       | 054888                                  | 074866             | 061905             | 104518                                  |
|          |   |                    |                    |   |
| 15       | 057871                                  | 063096             | 090804             | 108277                                  |
| 16       | 053340                                  | 071073             | 076687             | 110437                                  |
| 17       | 072149                                  | 095459             | 095934             | 121733                                  |
| 18       | 118047                                  | 109980             | 124798             | 134545                                  |
| 19       | 149512                                  | 088761             | 139142             | 149207                                  |
| 20       | 144215                                  | - 070025           | - 137004           | - 150005                                |
| 20       | 166215<br>157826                        | 079825<br>075686   | 137986<br>130364   | 158985<br>178436                        |
| 21<br>22 | 162206                                  | 074817             | 108575             | 198439                                  |
| 23       | 169036                                  | 086792             | 093919             | 214528                                  |
| 24       | 165334                                  | 093359             | 078216             | 227375                                  |
|          | • | ••••               |                    | *************************************** |
| 25       | 148356                                  | 089595             | 077730             | 224443                                  |
| 26       | 126282                                  | 124415             | 070107             | 214149                                  |
| 27       | 098290                                  | 148914             | 027516             | 197932                                  |
| 28       | 070794                                  | 129262             | 018169             | 167335                                  |
| 29       | 065381                                  | 117970             | 024364             | 135315                                  |
|          |   |                    |                    |   |
| 30       | 054017                                  | 099732             | 015282             | 102816                                  |
| 31       | 033264                                  | 047812             | .011040            | 082986                                  |
| 32       | 017782                                  | 023996             | .010436            | 076500                                  |
| 33       | 022478                                  | 036930             | .018874            | 062044                                  |
| 34       | 021113                                  | 030232             | .007131            | 043104                                  |
| 36       | 017304                                  | 003164             | .021959            | - 030015                                |
| 35<br>36 | 017394<br>002014                        | 004834             | .025712            | 030915<br>025694                        |
| 37       | 000760                                  | 000845             | .020126            | 026503                                  |
| 38       | 008229                                  | 021316             | .033992            | 026396                                  |
| 39       | 009864                                  | 018511             | . 022624           | 023249                                  |
| •        |   |                    |                    | *******                                 |
| 40       | 004141                                  | 011842             | .012634            | 018382                                  |
| 41       | .011166                                 | 016240             | .002331            | .000438                                 |
| 42       | .026171                                 | 025068             | .015283            | .016890                                 |
| 43       | .034266                                 | 023595             | .025211            | .029123                                 |
| 44       | .024889                                 | .015052            | .014062            | .032506                                 |
| .12      |   | 2,022              |                    |   |
| 45       | .015140                                 | .019220            | 016789             | - 035348                                |
| 46       | .018659                                 | .006089            | 016668             | .036588                                 |
| 47       | .036163                                 | .003541            | 005391             | .028095                                 |
| 48       | .033025                                 | .004111            | 037975             | .021691                                 |
| 49       | -000613                                 | .013546            | 024939             | .016977                                 |
| 50       | - 020324                                | .030296            | 003434             | 010004                                  |
| 50       | 028226<br>029118                        |                    | .003436<br>.022527 | .018804                                 |
| 51<br>52 | 029118<br>017249                        | .031079<br>.017938 | • 002632           | .033572<br>.042674                      |
| 53       | 017249                                  | .014868            | .017309            | .049090                                 |
| 54       | .008951                                 | .027611            | .007976            | .057258                                 |
|          |   | ******             |                    | -071270                                 |
| 55       | .025103                                 | .024183            | .003651            | .055862                                 |
| 56       | .017740                                 | .019361            | 017089             | .063037                                 |
| 57       | .023159                                 | .026698            | .015991            | .073072                                 |
| 58       | .022998                                 | .021128            | .010885            | .077351                                 |
| 59       | .025106                                 | .043540            | .007987            | .077319                                 |
|          |   |                    |                    |   |
| 60       | .033980                                 | .061002            | 019675             | .062646                                 |
|          |   |                    |                    |   |

RUN NC. 81B 40M 11-02-62 0046-0202 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

|     |      | <br>   |  |
|-----|------|--------|--|
| COS | ) Pt | <br>ĸu |  |

| K              | <b>U,V</b>         | U,W              | U.T                                     | V.H      | V , T        | W <sub>*</sub> T |
|----------------|--------------------|------------------|---|----------|--------------|------------------|
|                | 10E-03             | 10E-03           | 10E-03                                  | 10E-04   | 10E-03       | 10E-04           |
| 0              | .037263            | 002983           | .059749                                 | 058936   | .022353      | 000871           |
| i              | .359833            | 070707           | .723275                                 | 410989   | .281005      | 370714           |
| Ž              | .287720            | 097022           | .942612                                 | 309664   | .262278      | 686698           |
| 3              | .126718            | 091559           | .912037                                 | 190322   | .142353      | 744834           |
| 4              | .015969            | 078252           | .543937                                 | .114757  | .018614      | 640987           |
| 5              | 058070             | 112844           | .368018                                 | . 342452 | 035508       | 810086           |
| 6              | 064449             | 120177           | .334668                                 | .165787  | .014676      | 626680           |
| 7-8            | .019901            | 188305           | .413775                                 | 134489   | .077634      | 623664           |
| 9-11           | .066768            | 216363           | .279778                                 | 110456   | .074765      | 853611           |
| 12-15          | .055622            | 127024           | .167593                                 | 327167   | .044265      | 631933           |
| 14-20          | 024205             |                  | 104553                                  | 165518   | .026948      | 397499           |
| 16-20<br>21-27 | .024205<br>.008139 | 088314<br>069023 | .106553<br>.055086                      | 211304   | .017926      | 264608           |
| 28-36          | .016093            | 041775           | .031236                                 | 190387   | .012361      | 183148           |
| 37-47          | 000380             | 031069           | .016812                                 | 019086   | .003101      | 130451           |
| 48-60          | •003801            | 019026           | .007391                                 | 108175   | .005287      | 101643           |
| 40-00          | • 003801           |                  | *************************************** |          | •003281      | -1101043         |
| QUADRATUR      | E SPECTRUM         |                  |   |          |              |                  |
| K              | U,V                | U.W              | U,T                                     | V.W      | V,T          | W, T             |
|                | 10E-03             | 10E-04           | 10E-03                                  | 10E-03   | 10E-03       | 10E-03           |
| 1              | 086070             | 728094           | .019068                                 | 140647   | .037041      | .105166          |
| 2              | 196885             | 691434           | .057904                                 | 183774   | .121582      | .141908          |
| 3              | 162466             | 713777           | .134852                                 | 201259   | .143289      | .171985          |
| 4              | 035869             | 422987           | .149155                                 | 116170   | .065893      | .117635          |
| 5              | 015170             | .015977          | .071010                                 | 042318   | .039053      | .052680          |
| 6              | .036739            | .055287          | .075618                                 | 044663   | .032398      | .066932          |
| 7-8            | .157870            | 344074           | .126725                                 | 019947   | 045025       | .065754          |
| 9-11           | .087270            | 014598           | .057563                                 | .019446  | 015879       | .007700          |
| 12-15          | .031636            | .094120          | .021422                                 | 004410   | .018136      | .006201          |
| 16-20          | .008153            | .125649          | .020074                                 | .001645  | 009917       | .008084          |
| 21-27          | .004631            | .188757          | .014102                                 | 002489   | .002161      | 002381           |
| 28-36          | .010309            | 079872           | .006727                                 | 012332   | .005864      | .000372          |
| 37-47          | .009009            | 053508           | .005011                                 | .003408  | .000194      | .002138          |
| 48-60          | .002743            | 004959           | .000936                                 | .001297  | 001530       | .000955          |
|                |                    |                  |   |          |              |                  |
| POWER SPE      | CTRUM              |                  |   |          |              |                  |
| K              |                    | U                | ٧                                       |          | W            | Ţ                |
|                | 10E                | -02              | 10E+03                                  | 10E      | -03          | 10E-03           |
| 0              | -01                | 1674             | .044225                                 | .01      | 1740         | .045639          |
| 1              |                    | 8716             | .561561                                 | .16      | 5385         | .605452          |
| 2              | .17                | 5793             | .727263                                 | . 26     | 9636         | .821244          |
| 3              | -19                | 6428             | .722868                                 | . 36     | 7543         | .838205          |
| 4              | -13                | 6970             | .478313                                 | . 29     | 8148         | .534873          |
| 5              | _09                | 1731             | .361866                                 | . 18     | 0291         | . 365154         |
| 6              |                    | 4063             | .396820                                 |          | 7329         | .373628          |
| 7-8            |                    | 7680             | .380222                                 |          | 4440         | . 363930         |
| 9-11           |                    | 3813             | .423714                                 |          | 0690         | .212955          |
| 12-15          |                    | 7437             | .323899                                 |          | 6595         | .160365          |
| 14-30          |                    | 9596             | 220713                                  |          | 0256         | .109212          |
| 16-20          |                    |                  | .220712                                 |          | -            | .064906          |
| 21-27          |                    | 18473            | .197954                                 |          | 9917<br>7221 | .038939          |
| 28-36          |                    | 7471             | .152091                                 |          | 7331<br>2172 |                  |
| 37-47          |                    | 2062             | .092965                                 |          | 3173         | .026414          |
| 48-60          | •00                | 9930             | .066187                                 | • 0 •    | 6716         | .014751          |

RUN NO. 81B 40M 11-02-62 0046-0202 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

| M        | U,V      | U,W                                     | U, T    | V, W                                    | ٧, ٢                                    | W, T       |
|----------|----------|---|---------|---|---|------------|
|          | 0.87626  | 0 44440                                 |         |   | • • •                                   | 77.        |
|          | 10E-02   |   | 0.78750 | 0.28794                                 | 0.48819                                 | 0.25878    |
|          | 100-02   | 10E-02                                  | 108-02  | 10E-02                                  | 10E-02                                  | 10E-02     |
| 0        | .187219  | - 147354                                | *****   |   |   |            |
| 1        | -186902  | 167356                                  | .714314 | .011045                                 | - 252564                                | 170587     |
| 2        | .058772  | .036542                                 | -304006 | 042177                                  | .197725                                 | .020243    |
| 3        | _        | .046617                                 | .089077 | 004134                                  | .065980                                 | .061983    |
| 4        | •016143  | -005443                                 | .043805 | .015372                                 | 010099                                  | 015522     |
| •        | 027547   | -048168                                 | 024271  | .031743                                 | 033394                                  |            |
| 5        |          |   |         |   | ***********                             | .034283    |
| 6        | 016815   | .024999                                 | .047440 | .034485                                 | .018581                                 | 010511     |
|          | .054458  | 036522                                  | -064762 | 021611                                  |   | 019511     |
| 7        | .049067  | .089124                                 | 018807  | 034516                                  | -095802                                 | 038379     |
| 8        | • 024912 | .028045                                 | .084172 | 055668                                  | •120966                                 | • 069258   |
| 9        | •032993  | .047030                                 | -048217 | 036331                                  | .059280                                 | .001978    |
|          |          |   |         | -•030331                                | •070781                                 | .011038    |
| 10       | . 009298 | -064141                                 | 025505  | 012011                                  |   |            |
| 11       | 029389   | .038020                                 | -040603 | .013911                                 | .011863                                 | 029661     |
| 12       | 072227   | .141446                                 |         | .010200                                 | 033392                                  | 016828     |
| 13       | 061820   | .070331                                 | 026159  | 001988                                  | 080158                                  | -145282    |
| 14       | 023121   | 034883                                  | 112210  | • 056348                                | 056786                                  | .065958    |
|          |          | -•05                                    | 040852  | 020642                                  | 031619                                  | 058970     |
| 15       | 004790   | 011503                                  |         |   |   |            |
| 16       | 010487   | .011527                                 | 022344  | ·01088D                                 | .011373                                 | •002900    |
| 17       | - 073074 | 028003                                  | 034999  | ·020078                                 | .008093                                 | .004513    |
| 18       | 072076   | 028920                                  | 045948  | .046484                                 | 051878                                  |            |
| 19       | 061475   | 007038                                  | 093463  | .088888                                 | 064944                                  | • 008097   |
| 17       | 041225   | 049577                                  | 108107  | .057029                                 | 045794                                  | 015936     |
| 20       |          |   |         | *************************************** | 045794                                  | 014427     |
| 20       | 047431   | 058931                                  | 146103  | .041379                                 | 0/2000                                  |            |
| 21       | .010747  | 031657                                  | 151517  | 019313                                  | 047933                                  | 046317     |
| 22       | • 047055 | 140553                                  | 037751  |   | •045170                                 | 006310     |
| 23       | 012055   | 086763                                  | 008531  | 062644                                  | .078679                                 | 070962     |
| 24       | 001619   | 007789                                  |         | 042248                                  | • 029554                                | 044489     |
|          |          | *************************************** | .008173 | 046285                                  | 025621                                  | 001121     |
| 25       | 043160   | 093523                                  | - 00305 |   |   |            |
| 26       | 066487   | .013223                                 | 023954  | • 000491                                | 052286                                  | 023801     |
| 27       | 111442   |   | 113402  | 047050                                  | 078328                                  | .051423    |
| 28       | 107428   | -086571                                 | 162322  | 039822                                  | 066218                                  | .102097    |
| 29       | 073203   | 037987                                  | 094929  | 064128                                  | 087726                                  | 000678     |
| -        | •0132(13 | 077334                                  | 079302  | 044347                                  | - 05/777                                | 080599     |
| 30       | - 070776 |   |         |   |   | - • 000344 |
| 30       | 079775   | 017935                                  | 115886  | 022635                                  | 042681                                  | - 007/20   |
|          |          |   |         |   | *************************************** | 087638     |
| COSPECTA |          |   |         |   |   |            |
| COSPECTA | COM      |   |         |   |   |            |
| J        |          |   |         |   |   |            |
| K        | U,V      | U, W                                    | U,T     | V, W                                    |   |            |
|          |          |   |         | * ,                                     | V,T                                     | W, T       |
|          |          |   |         |   |   |            |
|          | 10E-03   | 10E-03                                  | 10E-03  | 105 04                                  |   |            |
|          |          |   | 100-03  | 10E-04                                  | 10E-03                                  | 10E-04     |
| 0        | .075134  | •042369                                 | 175770  |   |   |            |
| 1        | . 395854 | .128763                                 | -175730 | .013190                                 | .081042                                 | .059814    |
| 2        | .278482  | 023046                                  | .833386 | 153938                                  | .300537                                 | .153939    |
| 3        | .156901  |   | •510192 | 172832                                  | .165106                                 | 118050     |
| 4        |          | 101855                                  | .289879 | .167712                                 | .072295                                 | 244152     |
|          | • 065236 | 027342                                  | -265526 | . 234602                                | 002630                                  |            |
| 5        | 105044   |   |         |   | *************************************** | •006099    |
| 6        | -105946  | .019156                                 | .311182 | 115665                                  | .026744                                 | 042225     |
| 7        | •158610  | •005019                                 | .310954 | 145606                                  |   | .063285    |
|          | -211913  | 031327                                  | .381639 | 263682                                  | .087330                                 | 088569     |
| 8        | 253978   | 060570                                  | -351750 | 485642                                  | • 154072                                | 195508     |
| 9-11     | ·087668  | 028191                                  | -250005 |   | -204240                                 | 225848     |
|          |          |   |         | 014096                                  | .083898                                 | 106212     |
| 12-14    | .020845  | 049565                                  | -196712 | 100                                     |   | _          |
| 15-21    | .011879  | 047388                                  |         | -122484                                 | .019710                                 | 414906     |
| 22-30    | 049786   | 052383                                  | .153919 | 023895                                  | .007218                                 | 257381     |
|          |          | • 472 303                               | -133942 | <ul><li>163198</li></ul>                | 007055                                  | 246943     |
|          |          |   |         |   |   | , - ,      |

RUN NO. 81B . 40M 11-02-62 0046-0202 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

| 0.67626  | M        | U,V         | U.W     | U, T    | V,W     | V,T     | W.T      |
|--|----------|-------------|---------|---------|---------|---------|----------|
| 10E-02   |          | 05.87626    | 0.46448 | 0.78750 | 0.28794 | 0.48819 | 0.25878  |
| 2  |          |             |         |         |         |         |          |
| 2  | 1        | 033266      | 036375  | -025922 | 166980  | .077671 | .143759  |
| 3 .036178 .014853 .015957  |          |             |         |         |         |         |          |
| \$ .080932 .039550 .028021012445040653013201 5 .098111 .018782 .001336 .069000040157058207 6 .014390 .044708 .025906 .020177 .016110073555 7002028 .064432 .002541 .031576001170 .012810 8 .042729 .032852006414 .020759052862 .022790 9021467 .003606 .033560038397016287 .010983 10030692 .021892 .012215038223 .043043 .045083 11044773014462 .026521043880 .084485 .056522 12113182 .004333 .055198029997 .129261088852 13 .038024 .002448001538 .050322007633 .007071 15 .015142002355005028 .025485018872 .071772 15 .015142079060 .034857093099006948 .013745 16 .009332 -120839 .016327124077 .029160 .129761 17034981075123 .015021091599 .069788 .142706 18053378 .001009 .005803062321 .073985 .000845 190466098068222 .043813 .029710 .073243 .005289 20025377 .031630 .033633 .004270 .087658027226 21 .025894 .048147 .025027 .034164 .097851034262 .22 .030981086266 .040145017037 .023307 .023307 .023203 .23 .039372033954004733110300 .003514 .028185 .24 .038868 .009717022896056383 .031120 .046620 .25 .030981086206 .040145017037 .023307 .023307 .023203 .23 .039372033954004733110300 .003514 .028185 .24 .038868 .009717022896056383 .031120 .046049055249 .27 .100810 .094535006151 .126845029813086206 .046201 .046049055249 .056201 .046049055249 .056201 .034646 .076581032036 .035776 .066201 .034651 .126845076308032388 .0055776 .069238032931006406076308032308 .035776 .066201 .03463035931003591004508035913004508 -  |          |             |         |         |         |         |          |
| 5 .098111 .018782 .001336 .069000040157058207 6 .014390 .044708 .025906 .020177 .016110073580 7002028 .064432 .002541 .031576001170 .012810 8 .042729 .032852006414 .029059052662 .022790 9021467 .003606 .033500038397016287 .010983 10030692 .021892 .012215038223 .043043 .045586 11044773014462 .026521043880 .084485 .056522 12113182 .004333 .054198029997 .129261088852 13 .038024 .002440001538 .050322007633 .007057 14 .029142062355003028 .025485018872 .071772 15 .0151420179060 .03485709308900948 .013745 16 .009332120839 .016327124077 .029160 .129576 17034981075123 .015021091599 .069788 .142706 18053378 .001009 .005803062321 .073985008452 20025377 .031630 .033633 .004270 .087658027226 21 .025894 .048147 .025027 .034164 .097851034276 22 .030981086226 .040145017037 .023307 .023203 23 .039372033954004733110308 .003514 .028185 24 .038868 .009717022896056383 .031120 .066201 25 .100971046034009663012939006181 .094581 26 .057288 .03422001858 .024718 .046049055249 27 .100810 .094535006151 .126845029813 .0381720 .066201 28 .013442334570 .145175057077 .103929 .406125 .006581 .118515 .068471 .024311 .07046510086150072338 .031120 .066201 .034381 .034520001538 .004460076308032388 .031120 .066201 .034381 .034520 .004663012939006181 .0869581 .034520 .034531 .005496 .007433 .110308 .03514 .0095881 .031120 .066201 .004535 .006663 .012939 .006681 .009715 .006635 .012939 .006681 .009715 .006635 .012939 .006685 .035149 .004535 .006660 .006606 .0072939 .006681 .009653 .006660 .006606 .0066  |          |             |         |         |         |         | 013201   |
| 7  |          |             |         | .001336 |         |         | 058207   |
| 8  |          |             |         |         |         |         |          |
| 9021467 .003606 .033560038397016287 .010983 10030692 .021892 .012215038223 .043043 .045586 11044773014462 .026521043880 .084485 .045082 12113182 .004333 .054198029997 .129261088852 13 .038024 .002448001538 .050322007633 .007057 14 .029142062355005028 .025485018872 .071772 15 .015142079060 .034857093089006948 .013745 16 .009332120839 .016327124077 .029160 .124706 17034981075123 .015021091599 .069788 .142706 18053378 .001009 .005803062321 .073985 .000845 19046698068222 .043813 .029710 .073243 .005289 20025377 .031630 .033633 .004270 .087658027226 21 .025894 .048147 .025027 .034164 .097851034276 22 .030981086266 .040145017037 .023307 .023203 23 .039372033954004733 .110308 .003514 .028185 24 .038868 .009717022896058383 .031120 .066201 25 .100971046034009663012999006181 .049581 26 .057288 .034220019858 .024718 .046049055249 27 .100810 .094535006151 .126845029813089753 28 .118515 .068471024131 .076451086612072534 29 .062278 .034381036453 .006496076308032338 30 .035776 .069238032931003403045961022046  QUADRATURE SPECTRUM  K U,V U,W U,W U,T V,W V,T W,T  10E-03 10E-04 10E-03 10E-03 10E-03 10E-04  1 .013442334570 .145175057077 .103929 .406125 2 .074386 .584006 .052016000606027740096380 .035776 .069238032931003403045961022046  4 .036393336256 .035903039294 .023652 .022135 .023538 .013903035772 .041367023538 .013993035793034593  |          |             |         |         |         |         |          |
| 10030692 .021892 .012215038223 .043043 .045586  11044773014462 .026521043880 .084485 .056522 12113182 .004333 .054198029997 .129261088852 13 .038024 .002448001538 .050322007633 .007057 14 .029142062355005028 .025485018872 .071772 15 .015142079060 .034857093089006948 .013745 16 .009332120839 .016327124077 .029160 .129576 17034981075123 .015021091599 .006948 .013745 18053378 .001009 .005803062321 .073985 .000845 19046698068222 .043813 .029710 .073243 .005289 20025377 .031630 .033633 .004270 .087658027226 21 .025894 .048147 .025027 .034164 .097851034276 .22203 .039981086266 .040145017037 .023307 .023203 .23 .039372033954004733110308 .003514 .028185 .24 .038868 .009717022896058383 .031120 .066201 .25 .100971046034009663012939006181 .049581 .02686 .009717022896 .058383 .031120 .066201 .25 .100971046034009663012939006181 .049581 .026 .056201 .006227 .003464 .009863 .003514 .028185 .006201 .006201 .006201 .006201 .006651 .006651 .006651 .0066201 .006651 . |          |             |         |         |         |         |          |
| 11044773014462 .026521043880 .084485 .056522 12113182 .004333 .054198029997 .129261088852 13 .038024 .002448001538 .050322007633 .007057 14 .029142062355005028 .025485018872 .071772 15 .015142079060 .034857093089006948 .013745 16 .009332120839 .016327124077 .029160 .129576 17034981075123 .015021091599 .069788 .142706 18053378 .001009 .005803 .062321 .073785 .000845 19046698068222 .043813 .029710 .073243 .005289 20025377 .031630 .033633 .004270 .087658207226 21 .025894 .048147 .025027 .034164 .097851034276 22 .030981086266 .040145017037 .023307 .023203 23 .039372033954004733110308 .003514 .028185 24 .038868 .009717022896058383 .031120 .066201 25 .100971046034009663012939006181 .049581 26 .057288 .034220019858 .024718 .006451088612072534 27 .100810 .094535006151 .126845029813089753 28 .118515 .068471024131 .076451088612072534 29 .062278 .034381036453 .006946076308032388 30 .035776 .069238032931003403045961022046  QUADRATURE SPECTRUM  K U.V U.W U.W U.T V.W V.T W.T  10E-03 10E-04 10E-03 10E-03 10E-03 10E-04 1 .013442334570 .145175057077 .103929 .406125 .06201 .04568 .052016000606027740092386 .034381036453 .006946076308032388 .03120 .066501 .006966 .0074366 .584006 .052016000606027740094380 .035176 .069238032931003403045961022046  QUADRATURE SPECTRUM  K U.V U.W U.W U.T V.W V.T   |          |             |         |         |         |         |          |
| 12   | 10       | 030692      | .021892 | .012215 | 038223  | .043043 | • 045586 |
| 13   | 11       | 044773      | 014462  | .026521 | 043880  | .084485 | .056522  |
| 14   | 12       | 113182      | .004333 | .054198 | 029997  | .129261 | 088852   |
| 15   | 13       | .038024     |         |         |         |         |          |
| 16   |          |             |         |         |         |         |          |
| 17   | 15       | .015142     | 079060  | .034857 | 093089  | 006948  | .013745  |
| 17   | 16       | .009332     | 120839  | .016327 | 124077  | .029160 | .129576  |
| 10   |          |             | 075123  | .015021 | 091599  | .069788 | .142706  |
| 20   | 18       | 053378      | .001009 | .005803 | 062321  | .073985 | .000845  |
| 21   | 19       | 046698      | 068222  | .043813 | .029710 | .073243 | .005289  |
| 22   | 20       | 025377      | .031630 | .033633 | .004270 | .087658 | 027226   |
| 22   | 21       | . 025894    | .048147 | .025027 | .034164 | .097851 | 034276   |
| 24   |          |             |         |         |         |         |          |
| 25 .100971046034009663012939006181 .049981  26 .057288 .034220019858 .024718 .046049055249  27 .100810 .094535006151 .126845029813089753  28 .118515 .068471024131 .076451088612072534  29 .062278 .034381036453 .006946076308032388  30 .035776 .069238032931003403045961022046   QUADRATURE SPECTRUM  K U.V U.W U.T V.W V.T W.T  10E-03 10E-04 10E-03 10E-03 10E-03 10E-04  1 .013442334570 .145175057077 .103929 .406125  2 .074386 .584006 .052016000606027740096380  3 .173800 .848011 .015853 .014593064581320890  4 .155608025671 .023530019738037732041367  5 .138032602507 .013104042901035911 .149060  6 .036393336256 .035903039294 .023652 .022135  7101556153895 .047260057872 .071729 .211814  8060375615435 .013698102229 .010607 .774358  9-11037505212796003369032110 .004763 .380622  12-14049608328489 .016862038289 .058379 .320226  | 23       | .039372     | 033954  | 004733  | 110308  | .003514 | .028185  |
| 26 .057288 .034220019858 .024718 .046049055249 27 .100810 .094535006151 .126845029813089753 28 .118515 .068471024131 .076451088612072534 29 .062278 .034381036453 .006946076308032388 30 .035776 .069238032931003403045961022046  QUADRATURE SPECTRUM  K U,V U,W U,W U,T V,W V,T W,T  10E-03 10E-04 10E-03 10E-03 10E-03 10E-04  1 .013442334570 .145175057077 .103929 .406125 2 .074386 .564006 .052016006006027740096380 3 .173800 .848011 .015853 .014593064581320890 4 .155608025671 .023530019738037732041367 5 .138032602507 .013104042901035911 .149060 6 .036393336256 .035903039294 .023652 .022135 7101556153895 .047260057872 .071729 .211814 8060375615435 .013698102229 .010607 .774358 9-11037505212796003369032110 .004763 .380622 12-14049608328489 .016862038289 .058379 .320226  | 24       | .038868     | .009717 | 022896  | 058383  | .031120 | .066201  |
| 27   | 25       | .100971     | 046034  | 009663  | 012939  | 006181  | .049581  |
| 27   | 26       | .057288     | .034220 | 019858  | .024718 | .046049 | 055249   |
| 29 .062278 .034381036453 .006946076308032388 30 .035776 .069238032931003403045961022046  QUADRATURE SPECTRUM  K U,V U,W U,W U,T V,W V,T W,T  10E-03 10E-04 10E-03 10E-03 10E-03 10E-04  1 .013442334570 .145175057077 .103929 .406125 2 .074386 .584006 .052016000606027740096380 3 .173800 .848011 .015853 .014593064581320890 4 .155608025671 .023530019738037732041367 5 .138032602507 .013104042901035911 .149060  6 .036393336256 .035903039294 .023652 .022135 7101556153895 .047260057872 .071729 .211814 8060375615435 .013698102229 .010607 .774358 9-11037505212796003369032110 .004763 .380622 12-14049608328489 .016862038289 .058379 .320226  |          |             |         |         |         |         |          |
| QUADRATURE SPECTRUM  K U,V U,W U,T V,W V,T W,T  10E-03 10E-04 10E-03 10E-03 10E-03 10E-04  1 .013442334570 .145175057077 .103929 .406125 2 .074386 .584006 .052016000606027740096380 3 .173800 .848011 .015853 .014593064581320890 4 .155608025671 .023530019738037732041367 5 .138032602507 .013104042901035911 .149060  6 .036393336256 .035903039294 .023652 .022135 7101556153895 .047260057872 .071729 .211814 8060375615435 .013698102229 .010607 .774358 9-11037505212796003369032110 .004763 .380622 12-14049608328489 .016862038289 .058379 .320226   | 28       | .118515     | .068471 | 024131  | .076451 | 088612  | 072534   |
| QUADRATURE SPECTRUM  K U,V U,W U,T V,W V,T W,T  10E-03 10E-04 10E-03 10E-03 10E-03 10E-04  1 .013442334570 .145175057077 .103929 .406125 2 .074386 .584006 .052016000606027740096380 3 .173800 .848011 .015853 .014593064581320890 4 .155608025671 .023530019738037732041367 5 .138032602507 .013104042901035911 .149060  6 .036393336256 .035903039294 .023652 .022135 7101556153895 .047260057872 .071729 .211814 8060375615435 .013698102229 .010607 .774358 9-11037505212796003369032110 .004763 .380622 12-14049608328489 .016862038289 .058379 .320226   | 29       | .062278     | .034381 | 036453  | .006946 | 076308  | 032388   |
| K         U,V         U,W         U,T         V,W         V,T         W,T           10E-03         10E-04         10E-03         10E-03         10E-03         10E-04           1         .013442        334570         .145175        057077         .103929         .406125           2         .074386         .584006         .052016        000606        027740        096380           3         .173800         .848011         .015853         .014593        064581        320890           4         .155608        025671         .023530        019738        037732        041367           5         .138032        602507         .013104        042901        035911         .149060           6         .036393        336256         .035903        039294         .023652         .022135           7        101556        153895         .047260        057872         .071729         .211814           8        060375        615435         .013698        102229         .010607         .774358           9-11        037505        212796        003369        032110         .004763         .380622 </th <th>30</th> <th>.035776</th> <th>.069238</th> <th>032931</th> <th>003403</th> <th>045961</th> <th>022046</th>  | 30       | .035776     | .069238 | 032931  | 003403  | 045961  | 022046   |
| 10E-03 10E-04 10E-03 10E-03 10E-03 10E-04  1 .013442334570 .145175057077 .103929 .406125 2 .074386 .584006 .052016000606027740096380 3 .173800 .848011 .015853 .014593064581320890 4 .155608025671 .023530019738037732041367 5 .138032602507 .013104042901035911 .149060  6 .036393336256 .035903039294 .023652 .022135 7101556153895 .047260057872 .071729 .211814 8060375615435 .013698102229 .010607 .774358 9-11037505212796003369032110 .004763 .380622 12-14049608328489 .016862038289 .058379 .320226   | QUADRATU | RE SPECTRUM |         |         |         |         |          |
| 1       .013442      334570       .145175      057077       .103929       .406125         2       .074386       .584006       .052016      000606      027740      096380         3       .173800       .848011       .015853       .014593      064581      320890         4       .155608      025671       .023530      019738      037732      041367         5       .138032      602507       .013104      042901      035911       .149060         6       .036393      336256       .035903      039294       .023652       .022135         7      101556      153895       .047260      057872       .071729       .211814         8      060375      615435       .013698      102229       .010607       .774358         9-11      037505      212796      003369      032110       .004763       .380622         12-14      049608      328489       .016862      038289       .058379       .320226         15-21      022323       .069137       .013564      026908       .030071       .287988   | K        | U•V         | U.W     | U,T     | V.W     | V,T     | W, T     |
| 2       .074386       .584006       .052016      000606      027740      096380         3       .173800       .848011       .015853       .014593      064581      320890         4       .155608      025671       .023530      019738      037732      041367         5       .138032      602507       .013104      042901      035911       .149060         6       .036393      336256       .035903      039294       .023652       .022135         7      101556      153895       .047260      057872       .071729       .211814         8      060375      615435       .013698      102229       .010607       .774358         9-11      037505      212796      003369      032110       .004763       .380622         12-14      049608      328489       .016862      038289       .058379       .320226         15-21      022323       .069137       .013564      026908       .030071       .287988   |          | 10E-03      | 10E-04  | 10E-03  | 10E-03  | 10E-03  | 10E-04   |
| 2       .074386       .584006       .052016      000606      027740      096380         3       .173800       .848011       .015853       .014593      064581      320890         4       .155608      025671       .023530      019738      037732      041367         5       .138032      602507       .013104      042901      035911       .149060         6       .036393      336256       .035903      039294       .023652       .022135         7      101556      153895       .047260      057872       .071729       .211814         8      060375      615435       .013698      102229       .010607       .774358         9-11      037505      212796      003369      032110       .004763       .380622         12-14      049608      328489       .016862      038289       .058379       .320226         15-21      022323       .069137       .013564      026908       .030071       .287988   | 1        | .013442     | 334570  | .145175 | 057077  | .103929 | .406125  |
| 3  | 2        | .074386     | .584006 | .052016 | 000606  | 027740  | 096380   |
| 5       .138032      602507       .013104      042901      035911       .149060         6       .036393      336256       .035903      039294       .023652       .022135         7      101556      153895       .047260      057872       .071729       .211814         8      060375      615435       .013698      102229       .010607       .774358         9-11      037505      212796      003369      032110       .004763       .380622         12-14      049608      328489       .016862      038289       .058379       .320226         15-21      022323       .069137       .013564      026908       .030071       .287988   | 3        | .173800     | .848011 | .015853 | .014593 | 064581  | 320890   |
| 6 .036393336256 .035903039294 .023652 .022135 7101556153895 .047260057872 .071729 .211814 8060375615435 .013698102229 .010607 .774358 9-11037505212796003369032110 .004763 .380622 12-14049608328489 .016862038289 .058379 .320226   |          |             |         |         |         |         |          |
| 7      101556      153895       .047260      057872       .071729       .211814         8      060375      615435       .013698      102229       .010607       .774358         9-11      037505      212796      003369      032110       .004763       .380622         12-14      049608      328489       .016862      038289       .058379       .320226         15-21      022323       .069137       .013564      026908       .030071       .287988   | 5        | .138032     | 602507  | .013104 | 042901  | 035911  | .149060  |
| 8    060375    615435     .013698    102229     .010607     .774358       9-11    037505    212796    003369    032110     .004763     .380622       12-14    049608    328489     .016862    038289     .058379     .320226       15-21    022323     .069137     .013564    026908     .030071     .287988   | 6        | .036393     | 336256  |         | 039294  | .023652 | .022135  |
| 9-11037505212796003369032110 .004763 .380622<br>12-14049608328489 .016862038289 .058379 .320226<br>15-21022323 .069137 .013564026908 .030071 .287988   |          | 101556      | 153895  |         | 057872  |         |          |
| 12-14049608328489 .016862038289 .058379 .320226<br>15-21022323 .069137 .013564026908 .030071 .287988   |          | 060375      |         |         | 102229  | .010607 | .774358  |
| 15-21022323 .069137 .013564026908 .030071 .287988  |          |             |         |         |         |         |          |
|  | 12-14    | 049608      | 328489  | .016862 | 038289  | .058379 | .320226  |
|  | 15-21    | 022323      | .069137 | .013564 | 026908  | .030071 | .287988  |
|  |          |             |         |         |         |         |          |

RUN NO. 81B 40M 11-02-62 0046-0202 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

| M             | U                    | V                                       | W                 | Ţ                   |
|---------------|----------------------|---|-------------------|---------------------|
|               | 0.14135              | 0.54321                                 | 0.15263           | 0.43874             |
|               | 10E-01               | 10E-02                                  | 10E-02            | 10E-02              |
| 0             | 1.000000             | 1.000000                                | 1.000000          | 1 000000            |
| 1             | .460305              | .493762                                 | .092117           | 1.000000<br>.365611 |
| 2             | .264776              | .338225                                 | 129317            | •056625             |
| 3             | .258295              | .221431                                 | .080665           |                     |
| 4             | .149217              | .169765                                 | 085541            | .000109<br>073377   |
| 5             | .159383              | .190561                                 | 087427            | .022611             |
| 6             | .178250              | .181267                                 | .031337           | .032916             |
| 7             | .093778              | .150637                                 | ~.030646          | 048462              |
| 8             | -188201              | •042509                                 | 066449            | .011050             |
| 4             | -126482              | .018974                                 | 080297            | 008046              |
| 10            | .037759              | 023392                                  | 033850            | 035685              |
| 11            | .099038              | 068180                                  | 127764            | 029708              |
| 12            | .010985              | 082004                                  | 180929            | 055083              |
| 13            | 084115               | 135131                                  | 075323            | 098487              |
| 14            | 081037               | 074352                                  | 006243            | 007746              |
| 15            | 087375               | 003077                                  | 002958            | 042290              |
| 16            | 074467               | 041488                                  | .021540           | • 042389            |
| 17            | 039912               | 137176                                  | .029903           | .040973<br>081868   |
| 18            | 156987               | 153910                                  | 000553            | 102784              |
| 19            | 160423               | 143171                                  | .123803           | 088621              |
| 20            | 174303               | 054449                                  | 140124            |                     |
| 21            | 194242               | 039941                                  | -140136           | 118790              |
| 22            | 083513               | 017903                                  | .023476           | 149538              |
| 23            | 031722               | 047283                                  | • 092695          | 060331              |
| 24            | 096119               | 155186                                  | .060992<br>017260 | 004356<br>-030683   |
| 25            | 098485               | 122074                                  |                   |                     |
| 76            |                      | 133876                                  | 034222            | 034799              |
| 27            | -•204624<br>-•301311 | 249991                                  | 099509            | 087581              |
| 28            | 232549               | 202141                                  | 110039            | 092361              |
| 29            | 218942               | 158984<br>172178                        | 028357<br>.104945 | 047051              |
| 30            | 24.0550              |   |                   | 015361              |
| 30            | 248550               | 158784                                  | 014998            | 071889              |
| POWER SPECTRO | UM                   |   |                   |                     |
| ĸ             | U                    | .,                                      |                   |                     |
|               | Ü                    | V                                       | W                 | Ť                   |
|               | 10E-02               | 10E-02                                  | 10E-04            | 10E-03              |
| 0             | .091555              | .031586                                 | 044410            |                     |
| 1             | .344337              | .126088                                 | .044610           | .085227             |
| 2             | .167469              | .073953                                 | .306331           | •428483             |
| 3             | .072942              | .046361                                 | .627267           | .306922             |
| 4             | .050568              | .025916                                 | •981986<br>•25141 | • 255859            |
|               |                      | *************************************** | .625161           | .267824             |
| 5             | .062740              | .018010                                 | .357029           | .246871             |
| 6             | .066645              | .016964                                 | .551343           | .207680             |
| 7             | .070272              | .020534                                 | .700579           | • 269816            |
| 8             | .058159              | .028654                                 | .782230           | .789636             |
| 9-11          | .042977              | .019539                                 | . 586639          | .210494             |
| 12-14         | .034927              | 010017                                  |                   |                     |
| 15-21         | .041187              | .012017                                 | •617164           | .175476             |
| 22-30         | .034648              | .011663                                 | .881401           | .131689             |
|               | 1037070              | .014316                                 | .625484           | •120405             |

RUN NC. 81B 16M 11-02-62 0046-0202 EST RUN NC. 81B 40M 11-02-62 0046-0202 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

## COHERENCE WITH QUADRATURE

| K                       | U  | V  | W                             | Ţ                             |
|-------------------------|--|--|-------------------------------|-------------------------------|
|                         | 10E 00                                   | 10E 00                                   | 10E 00                        | 10E 00                        |
| 0<br>1<br>2<br>3<br>4   | .090553<br>.179739<br>.119622<br>.049875 | •136525<br>•371158<br>•274746            | .005686<br>.177451<br>.202334 | .174148<br>.283432<br>.239158 |
|                         | -056385                                  | •176931<br>•095729                       | • 273171<br>• 323048          | •155502<br>•097122            |
| 5<br>6<br>7-8<br>9-11   | .035858<br>.179435<br>.115856<br>.108276 | •117418<br>•190176<br>•152726<br>•152472 | .264574<br>.303399<br>.397157 | .110424<br>.163510<br>.234574 |
| 12-15                   | .081209                                  | .083017                                  | .093312<br>.123815            | .093574<br>.101242            |
| 21-27<br>28-36<br>37-47 | .085739<br>.087334<br>.153318            | .080288<br>.127587<br>.073476            | •141005<br>•107837<br>•126660 | .098278<br>.086643<br>.147694 |
| 48-60                   | .084790<br>.085920                       | .086522<br>.082223                       | •105293<br>•092201            | .089357                       |

# 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

### COHERENCE WITH QUADRATURE

| K     | U       | V       | W       | Ť        |
|-------|---------|---------|---------|----------|
|       | 10E 00  | 10E 00  | 10E 00  | 10E 00   |
| 0     | .756002 | .903811 | .290755 | •195753  |
| 1     | .548441 | .841885 | .380774 | •277835  |
| 2     | .099727 | .664299 | .536139 | •192767  |
| 3     | .293842 | .463053 | .499243 | •185436  |
| 4     | .264943 | .329053 | .233496 | •197037  |
| 5     | .270043 | .242780 | •143820 | • 184960 |
| 6     | .123414 | .157703 | •158710 | • 294799 |
| 7     | .351689 | .306201 | •258919 | • 253208 |
| 8     | .302902 | .597313 | •381674 | • 197467 |
| 9-11  | .255853 | .389401 | •300692 | • 356665 |
| 12-14 | •153668 | .185724 | .144278 | •280534  |
| 15-21 | •250226 | .300739 | .343465 | •184200  |
| 22-30 | •233415 | .220697 | .256889 | •190633  |

RUN NO. 81C 16M 11-02-62 0213-0318 EST

### GROSS STATISTICS

| CLEAR         | WIND SP                 | EED 3.87 M/SEC                 | WIND DIRE                     | CTION 325 DEG                      |
|---------------|-------------------------|--------------------------------|-------------------------------|------------------------------------|
| STABLE        | SIGMA A                 | 6.6 DEG                        | SOLAR RAD                     | OIATION O                          |
| LAND          | SIGMA E                 | 2.9 DEG                        | NET RADIA                     | TION -0.16                         |
|               |                         |                                |                               |                                    |
|               | WITH NO<br>RUNNING MEAN | WITH 301 POINT<br>RUNNING MEAN | WITH 61 POINT<br>RUNNING MEAN | 301 PT RUN MEAN<br>10 PT BLOCK AVG |
| VARIANCES     |                         |                                |                               |                                    |
| U             | 0.41582E-00             | 0.16360E-00                    | 0.14289E-00                   | 0.81218E-01                        |
| v             | 0.19925E-00             | 0.91679E-01                    | 0.85033E-01                   | 0.32560E-01                        |
| W             | 0.36896E-01             | 0.36994E-01                    | 0.34771E-01                   | 0.94366E-02                        |
| T             | 0.59359E-01             | 0.12794E-01                    | 0.11591E-01                   | 0.55063E-02                        |
| Ε             | 0.32598E-00             | 0.14615E-00                    | 0.13135E-00                   |                                    |
| GUSTINESS RAT | 105                     |                                |                               |                                    |
| U             | 0.16663                 | 0.10452                        | 0.09768                       | U. 07364                           |
| v             | 0.11534                 | 0.07824                        | 0.07535                       | 0.04663                            |
| Ň             | 0.04963                 | 0.04970                        | 0.04818                       | 0.02510                            |
| COVARIANCES   |                         |                                |                               |                                    |
| U.V           | -0.13721E-00            | -0.41373E-02                   | -0.31835E-02                  | -0.31919E-02                       |
| U,W           | -0.30897E-01            | -0.31508E-01                   | -0.26747E-01                  | -0.13361E-01                       |
| U,T           | 0.11525E-00             | 0.25460E-01                    | 0.22572E-01                   | 0.13329E-01                        |
| V.W           | 0.52380E-02             | 0.38534E-02                    | 0.48241E-02                   | 0.19281E-02                        |
| V.T           | -0.65058E-01            | -0.24191E-02                   | -0.24133E-02                  | -0.12409E-02                       |
| W , T         | -0.88073E-02            | -0.87223E-02                   | -0.81698E-02                  | -0.24941E-02                       |
| WE            | -0.14550E-02            | 0.22164E-02                    | 0.26357E-03                   |                                    |
| NORMALIZED CO | IVARIANCES              |                                |                               |                                    |
| 1) V          | -0 47470                | -0.03378                       | -0.02088                      | -0.04307                           |
| U,V<br>U.W    | -0.47670<br>-0.24945    | -0.03378<br>-0.40500           | -0.02888<br>-0.37947          | -0.06207<br>-0.48262               |
| U,T           | 0.73355                 | 0.55650                        | 0.55465                       | 0.63029                            |
| V,W           | 0.06109                 | 0.06617                        | 0.08872                       | 0.11000                            |
| V.T           | -0.59822                | -0.07063                       | -0.07687                      | -0.09268                           |
| WyT           | -0.18820                | -0.40092                       | -0.40695                      | -0.34600                           |
|               |                         |                                |                               |                                    |

RUN NO. 81C 16M 11-02-62 0213-0318 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

|          | 200 000 000000                          | 001111111111        |                    |                    |                  |                  |
|----------|---|---------------------|--------------------|--------------------|------------------|------------------|
| М        | U.V                                     | U.W                 | U.T                | V , W              | V.T              | W.T              |
|          | 0.11026                                 | 0.70519             | 0.40700            | 0.54387            | 0.31389          | 0.20075          |
|          | 10E 00                                  | 106-01              | 10E-01             | 10E-01             | 108-01           | 10E-01           |
| 0        | 028879                                  | 379477              | .554706            | .088933            | 076915           | 406928           |
| ĭ        | 046332                                  | 306515              | .482043            | .074976            | 068980           | 293903           |
|          |   |                     |                    |                    |                  |                  |
| 2        | 059508                                  | 199205              | .356229            | .063389            | 055539           | 154776           |
| 3        | 048275                                  | 108578              | .244797            | .056852            | 043260           | 061000           |
| 4        | 029398                                  | 044206              | .155594            | . 048885           | 026220           | .001523          |
| 5        | 009677                                  | 002168              | .090951            | .019960            | 014269           | .041222          |
| 6        | .010272                                 | .017149             | .043683            | 003322             | 003321           | .065423          |
| 7        | .010346                                 | .031949             | 003858             | 011317             | .001780          | .072767          |
| 8        | .008176                                 | .045973             | 039876             | 008211             | 003624           | .060175          |
| 9        | .017877                                 | .055342             | 055317             | 017163             | 005409           | .052894          |
| 10       | .021100                                 | .064924             | 055166             | 019439             | .007434          | .049450          |
| 11       | .023390                                 | .067526             | 065356             | 033313             | .027528          | .044725          |
| 12       | .031615                                 | .062856             | 079514             | 045993             | .039237          | .032318          |
| 13       | .035904                                 | .054918             | 087943             | 032195             | .036091          | .027455          |
| 14       | .035558                                 | .052358             | 091632             | 021765             | .033926          | .027988          |
| 15       | .028364                                 | .052687             | 095708             | 027876             | .033485          | .028744          |
| 16       | .016071                                 | .053701             | 099587             | 026902             | .028158          | .039041          |
| 17       | .008801                                 | .053111             | 109976             | 012789             | .010617          | .049229          |
| 18       | .000581                                 | .045998             | 115131             | .000911            | 008557           | .044505          |
| 19       | 004193                                  | .039257             | 111257             | 004865             | 009214           | .032985          |
| • /      | • | •••                 |                    |                    |                  |                  |
| 20       | 006593                                  | .037724             | 108330             | 007483             | 000987           | .026410          |
| 21       | 012129                                  | .039137             | 106011             | 005215             | .001844          | .013062          |
| 22       | .001206                                 | .040510             | 108669             | 009635             | .005517          | .000682          |
| 23       | .003046                                 | .u34053             | 107606             | 001882             | .003736          | 003692           |
| 24       | .008782                                 | .031084             | 113510             | 006660             | .009484          | .005505          |
| 25       | .014597                                 | .035407             | 118867             | 012602             | .024693          | .028157          |
| 26       | .013111                                 | .047529             | 116294             | 017585             | .032759          | .053323          |
| 27       | . 006275                                | .045783             | 103006             | 027285             | .028471          | .063348          |
| 28       | .001493                                 | .042526             | 080966             | 036952             | .023164          | .055660          |
| 29       | .003015                                 | .032104             | 052189             | 032265             | .019758          | .031723          |
| 30       | .001537                                 | .015921             | 026167             | 031780             | •015125          | .005921          |
| 31       | 004957                                  | .001519             | 003586             | 009376             | 001093           | 020447           |
| 32       | 003943                                  | 000508              | .010690            | .022367            | 007760           | 036588           |
| 33       | 000444                                  | 010715              | .024862            | .027182            | .000143          | 045065           |
| 34       | 009072                                  | 025678              | .040231            | .019433            | .004519          | .047624          |
|          |   |                     |                    |                    |                  |                  |
| 35       | 009179                                  | 035742              | .045714            | .010902            | .003109          | 035709           |
| 36       | 004645                                  | 041396              | .036854            | .009097            | .001682          | 019634           |
| 37       | 009222                                  | 037213              | .026416            | .012322            | 003013           | 005368           |
| 38       | 008983                                  | 036333              | .016658            | 000466             | 003993           | .003676          |
| 39       | 005690                                  | 037017              | .005067            | 011559             | .001873          | .013986          |
| 40       | 006551                                  | 026855              | 007291             | 014775             | .001004          | .016441          |
| 41       | 008136                                  | 014550              | 009536             | 005592             | .000298          | .016502          |
| 42       | 012404                                  | 013732              | 012309             | 003077             | .008824          | .016004          |
| 49       | 016880                                  | 019312              | 009982             | .002230            | .007521          | .001351          |
| 44       | 024222                                  | 012143              | 006581             | .005971            | .003286          | 007342           |
| 45       | 024445                                  | 004579              | 003362             | .007159            | 003052           | 023892           |
| 46       | 018416                                  | 001703              | 004799             | .017900            | 011732           | 032124           |
| 47       | 008987                                  | .010001             | 011994             | .018169            | 014664           | 017725           |
| 48       | 0025 0                                  | .016193             | 015122             | .004052            | 008721           | 001477           |
| 49       | .000874                                 | .011912             | 016411             | 005781             | 001556           | .003737          |
|          | 003550                                  | 015734              | - 010313           | _ 003340           | - 000045         | 011543           |
| 50       | .003559                                 | .015736             | 018213             | 002360             | 009065           | .011563          |
| 51       | .005279                                 | .015660             | 015992             | .004070            | 021886           | .017438          |
| 52       | .0030.20                                | .010706             | 005098             | .018208            | 032114           | .002334          |
| 53<br>54 | .001766<br>003925                       | .007667<br>~.004809 | .007662<br>.029903 | .022964<br>.016423 | 032366<br>028548 | 012366<br>026387 |
|          |   |                     |                    |                    |                  |                  |
| 55       | 010634                                  | 016671              | .040436            | .006948            | 028220           | 036318           |
| 56       | 017004                                  | 022390              | .037622            | .014277            | 028324           | 044323           |
| 57       | 012783                                  | 024333              | .036470            | .003943            | 019790           | 050337           |
| 58       | 001934                                  | 029929              | .031325            | 024327             | 010504           | 043571           |
| 59       | .007947                                 | 015872              | .015638            | 034311             | 007791           | 009423           |
| 60       | .016370                                 | .015332             | 007258             | 030364             | 007594           | .028878          |
|          |   |                     |                    |                    |                  |                  |

RUN NC. BIC 16M 11-02-62 0213-0318 EST 61 PCINT RUNNING MEAN, NO BLOCK AVERAGING

| HORMETE  | ED SUMURATORE      | COTHICARITOL       |                    |                    |                   |                    |
|----------|--------------------|--------------------|--------------------|--------------------|-------------------|--------------------|
| м        | U,V                | U, W               | U,T                | V , W              | v., r             | W, T               |
|          | 0.11026            | 0.70519            | 0.40700            | 0.54387            | 0.31389           | 0.20075            |
|          | 10F 00             | 10E-01             | 10E-01             | 10E-01             | 10E-01            | 10E-01             |
| 1        | 002839             | .002006            | .036171            | 013334             | 013558            | 057993             |
| 2        | .001894            | .011603            | .050534            | 021463             | 024407            | 077667             |
| 3        | .011999            | .030576            | .050957            | 030337             | 031532            | 075502             |
| 4        | .010868            | .030193            | .054299            | 03800B             | 035351            | 059787             |
| 5        | .002535            | .025751            | .055617            | 040235             | 032390            | 038539             |
| 6        | .003976            | .028797            | .061339            | 047835             | 020047            | 027874             |
| 7        | .005284            | .027375            | .062987            | 048462             | 011454            | 027276<br>031705   |
| 8<br>9   | .006638<br>.007437 | .044177<br>.051141 | .056418<br>.044263 | 054838<br>058703   | 006638<br>-000518 | 034609             |
| 10       | .003651            | .045526            | .031705            | 054361             | .012547           | 031435             |
| 11       | .005130            | .040530            | .030814            | 051182             | .022772           | 038175             |
| 12       | .012847            | .047880            | .025407            | 038573             | .024430           | 030085             |
| 13       | .015317            | .036359            | .023760            | 039688             | .026638           | 015119             |
| 14       | .006798            | .028143            | .024610            | 034990             | .020953           | 013785             |
| 15       | 007301             | .033116            | .019384            | 021844             | .018260           | 014665             |
| 16       | 008750             | .031600            | .021264            | 009109             | .018258           | 010714             |
| 17       | 011329             | .018571            | .026265            | .003057            | .016202           | .002320            |
| 18       | 006508             | .009789            | .035750            | .016077            | .003020<br>005628 | .008760<br>.008637 |
| 19       | 004618             | 000356<br>005810   | .045216<br>.052325 | .013954<br>004878  | 002028            | .001077            |
| 20       | 003976             |                    |                    |                    |                   |                    |
| 21       | 005512             | 001762             | .055922            | 012775             | 003294            | 006145             |
| 22       | 007864             | .003976            | .046660            | 009372             | 009426            | 020642             |
| 23       | 005747             | .006251            | .034091            | .009422            | 013431<br>021486  | 027508<br>024191   |
| 24<br>25 | 001755<br>.008179  | .006833<br>.002895 | .026685<br>.022509 | .024516<br>.031802 | 028640            | 023685             |
| 73       | .000177            |                    |                    |                    |                   |                    |
| 26       | .019333            | 005807             | .013370            | .030511            | 022013            | 013916             |
| 27       | .015045            | 010407             | .001621            | .047952            | 010969            | 001110             |
| 28       | .012064            | 013855             | 001463             | .064950            | 000486<br>.006901 | .007412<br>.004728 |
| 29<br>30 | .014921<br>001538  | 011567<br>016746   | 003854<br>009921   | .058961<br>.037956 | .017970           | .005271            |
| 10       | 001778             |                    |                    |                    |                   |                    |
| 31       | 019883             | 021639             | 004395             | .020115            | .019565           | .005946            |
| 32       | 026072             | 020393             | 001423             | .023299            | .007522           | .002493            |
| 33       | 024232             | 029156             | 004109             | .027440<br>.025912 | 013130<br>035759  | .012535            |
| 34<br>35 | 017971<br>005245   | 031518<br>022296   | 007729<br>007260   | .030114            | 055063            | .003326            |
|          |                    |                    |                    |                    |                   |                    |
| 36       | .000900            | 016244             | 011516             | .031740            | 056920            | .003997            |
| 37       | 003973             | 010641             | 007742             | .011442<br>014637  | 030446<br>.003011 | .004309            |
| 38<br>19 | 007601<br>012377   | 009902<br>000608   | 000478<br>002835   | 032894             | .012795           | .005900            |
| 40       | 022244             | 002077             | 010546             | 048170             | .028045           | .011398            |
| 41       | 024602             | 008673             | 013235             | 050933             | .040026           | .018617            |
| 42       | 022022             | 009777             | 017762             | 039790             | .035610           | .024069            |
| 43       | 027030             | 007697             | 019421             | 025111             | .026574           | .014658            |
| 44       | 029075             | 017067             | 025304             | 025948             | .019912           | .014880            |
| 45       | 028228             | 017749             | 037966             | 020389             | .010827           | .028718            |
| 46       | 020965             | 002969             | 055272             | 019334             | .003374           | .034849            |
| 47       | 013611             | .015337            | 065523             | 025413             | .0106H1           | .034027            |
| 48       | 007464             | .015747            | 062398             | 036323             | .026393           | .038894            |
| 49       | 003089             | .002761            | 050300             | 020102             | .036541           | •0424P3            |
| 50       | .002843            | .001169            | 038696             | 001922             | .044477           | .046295            |
| 51       | .003717            | .009164            | 029000             | 000697             | .040492           | .039562            |
| 52       | .017373            | .012842            | 024744             | 012919             | .020363           | .021895            |
| 53       | .034673            | .020048            | 021377             | 004929             | 014638            | .003433            |
| 54<br>55 | .053453            | .015798<br>.011627 | 010965<br>.000031  | .016679<br>.012774 | 041337<br>047738  | 018172<br>025005   |
| ,,       |                    |                    |                    |                    |                   |                    |
| 56       | .066095            | .013345            | .005480            | .007763            | 048141            | 031628             |
| 57       | .069107            | .008820            | .009375            | .009765            | 049252            | 032992             |
| 58       | .060990            | .009414            | -012885            | .015847            | ~.045004          | 036978             |
| 59       | .046474            | .017741            | •012001            | .026245            | 043856            | 033619             |
| 60       | .048394            | .017254            | .015754            | .024048            | 043568            | 031215             |

RUN NO. BIC 16M 11-02-62 0213-0318 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| M        |               | U             | ٧                  |                  | _        |
|----------|---------------|---------------|--------------------|------------------|----------|
|          | 0.1           |               |                    | <b>¥</b>         | Т        |
|          |               | 14297<br>- 00 | 0.85038<br>10E-01  | 0.3478<br>10E-01 |          |
| 0        | 1.00          | 0000          |                    |                  |          |
| ĭ        |               | 7346          | 1.000000           | 1.00000          |          |
| Ž        |               | 9921          | -698135            | • 58363          |          |
| 3        |               | 2652          | .365452            | • 22458          |          |
| 4        |               | 7446          | •189002<br>•079622 | -03610<br>05005  | ******   |
| 5        | -15           | 9268          | 003/07             |                  |          |
| 6        |               | 4264          | .003687<br>038189  | 08211            |          |
| 7        |               | 6278          | 069622             | 08332            |          |
| 8        | 04            |               | 074920             | 07579<br>05946   | _        |
| 9        | 07            | 5780          | 073505             | 07279            |          |
| 10       | 08            | 7456          | 083431             | 08450            | - 105422 |
| 11       | 11            | 1445          | 105356             | 08410            |          |
| 12       | 13            |               | 136263             | 07556            |          |
| 13       | 14            |               | 158801             | 07641            |          |
| 14       | 15            | 4571          | 166047             | 06758            |          |
| 15       | 17            |               | 166354             | 04942            | 151141   |
| 16       | 17            |               | 141908             | 04454            |          |
| 17       | 18            |               | 106144             | 07313            |          |
| 18<br>19 | 17            |               | 089428             | 073898           | 144070   |
| 17       | 17            | 1 762         | 088700             | 060401           | 134815   |
| 20       | 17            |               | 084748             | 051561           | 134341   |
| 21       | 18            |               | 077577             | 023559           |          |
| 22       | 19            |               | 082083             | 018116           |          |
| 23<br>24 | 18            |               | 097311             | 019379           |          |
| ۲۹       | 19            | 5232          | 102395             | 032914           | 112951   |
| 25       | 19            |               | 094295             | 052814           | 124908   |
| 26       | 18            |               | 069805             | 086361           |          |
| 27<br>28 | 160           |               | 049349             | 121761           |          |
| 29       | 131           |               | 032542             | 135010           |          |
|          | 093           | 104           | 024530             | 110658           | 107821   |
| 30       | 059           |               | 016282             | 057285           | 071177   |
| 31       | 031           |               | .010786            | .031268          |          |
| 32       | 011           |               | .028139            | .072618          |          |
| 33<br>34 | -016          |               | -022461            | .067934          | .059963  |
| 74       | -041          | . 087         | .018565            | - 068348         | .069181  |
| 35       | .052          | 163           | .023818            | .051973          | .062643  |
| 36       | •059          | 120           | .027580            | .037223          | .044007  |
| 37       | •070          |               | .025950            | .018109          | .024515  |
| 38<br>39 | •069          |               | .023730            | .024814          | .001947  |
| 74       | .054          | 918           | .021564            | .040042          | 027284   |
| 40       | .031          | 786           | .018455            | .043524          | 046262   |
| 41       | .023          | 633           | .010948            | .011253          | 051384   |
| 42       | •009          | 779           | -004493            | .018583          | 051934   |
| 43       | •003          |               | .004998            | .026949          | 039001   |
| 44       | •001          | 985           | .019433            | .004102          | 019573   |
| 45       | 013           |               | .033515            | 015872           | •007862  |
| 46       | 022           |               | .025783            | 008369           | .017055  |
| 47       | 021           |               | 000902             | 008671           | 003550   |
| 48<br>49 | 009           |               | 026167             | 015686           | 019955   |
| 77       | 005           | <b>464</b>    | 023769             | 032129           | 020631   |
| 50       | 004           |               | 014323             | 042309           | 013595   |
| 51<br>52 | 005           |               | 004668             | 052787           | 000069   |
| 52<br>53 | 004           |               | .001477            | 023817           | .020381  |
| 54       | •0026<br>•013 |               | 004593             | .010285          | -043576  |
|          | .013          |               | 000884             | • 045892         | .065867  |
| 55<br>54 | -0149         |               | .012129            | .066080          | .081217  |
| 56<br>57 | •0028         |               | .010796            | .061910          | .087985  |
| 58       | .0083         |               | .007173            | .039332          | .086269  |
| 59       | .0094<br>0036 |               | •005020            | •037290          | .072636  |
|          |               |               | .010213            | 001731           | .044536  |
| 60       | 0129          | 982           | .023701            | 055342           | .013323  |

| RUN NO.<br>61 POIN | 81C 16M<br>T RUNNING MEA                | 11-02-62<br>N. NO BLOCK | 0213-0318 (<br>AVERAGING | EST                |                   |                  |
|--------------------|---|-------------------------|--------------------------|--------------------|-------------------|------------------|
| COSPECTR           | UM                                      |                         |                          |                    |                   |                  |
| K                  | U.Y                                     | U+W                     | U,T                      | V.W                | V, T              | W,T              |
|                    | 10E-02                                  | 10E-02                  | 10E-02                   | 10E-03             | 10E-03            | 10E-03           |
| 0                  | 001586                                  | 007609                  | .011092                  | 002135             | -004030           | 006024           |
| 1                  | 005389                                  | 100495                  | .174808                  | .264179            | 159210            | 176198           |
| 2                  | 049258                                  | 193037                  | .269040                  | .555289            | 314868            | 367267           |
| 3                  | 105555                                  | 297992                  | .342295                  | . 766994           | 371929            | 582769           |
| 4                  | 108665                                  | 261822                  | .268164                  | .690679            | 320957            | 588330           |
| 5                  | 111092                                  | 206761                  | .164905                  | .618218            | 307219            | 514138           |
| 6                  | 106528                                  | 226015                  | .155574                  | .650673            | 304575            | 565814           |
| 7-8                | 045109                                  | 175766                  | .146440                  | .351881            | 121182            | 564221           |
| 9-11<br>12-15      | .002056<br>006913                       | 118667<br>073434        | .083631<br>.041814       | .082802<br>.054989 | 003986<br>110058  | 482056<br>241545 |
| ,                  | *************************************** | 10,3434                 | .011011                  | ********           | ********          |                  |
| 16-20              | .023792                                 | 050981                  | .025568                  | 058150             | .009609           | 167971           |
| 21-27              | .017371                                 | 019284                  | .016192                  | .029493            | 012433            | 103277           |
| 28-36<br>37-47     | .004738<br>.006752                      | 011652<br>007172        | .005092<br>.003777       | .054911<br>001654  | .004035<br>009449 | 063844<br>042713 |
| 48-60              | .001793                                 | 004440                  | .001131                  | .008595            | .001977           | 022188           |
| 0.7.7.7            |   |                         |                          |                    |                   |                  |
| QUADRATU           | RE SPECTRUM                             |                         |                          |                    |                   |                  |
| K                  | U•A                                     | U, M                    | U, T                     | V. W               | V.T               | W.T              |
|                    | 10E-03                                  | 10E-02                  | 10E-03                   | 10E-02             | 10E-03            | 10E-03           |
| 1                  | 212126                                  | .055678                 | .862305                  | 014607             | 035489            | 190809           |
| 2                  | .281289                                 | .097393                 | .873794                  | 055964             | .015619           | 254390           |
| 3                  | . 198692                                | -111916                 | -541619                  | ~.121895           | .106515           | 208998           |
| 5                  | .073835<br>.391554                      | .059543<br>.024289      | .278630<br>.260098       | 087712<br>016801   | 055552<br>212374  | 187161<br>205616 |
| •                  | 6.371.334                               | *024207                 | 1200070                  |                    | 212314            | -+207010         |
| 6                  | .224910                                 | .012761                 | .372845                  | 020302             | 229522            | 190682           |
| 7-8                | 170222                                  | 009910                  | .395615                  | 008388             | 277415            | 108382           |
| 9-11               | .111750                                 | -003871                 | .023385                  | .010100            | 067988            | 109616           |
| 12-15<br>16-20     | .070864<br>061730                       | .001742<br>.002643      | .061436<br>.066297       | 004389<br>006302   | 005158<br>.001872 | 111914           |
| 10-20              | -*001130                                | .002043                 | 1080297                  | 006302             | .001072           | 071246           |
| 21-27              | 089486                                  | 008253                  | .040788                  | .003359            | .012006           | 020652           |
| 28-36              | 045628                                  | 001932                  | .018583                  | 001161             | 010504            | 010376           |
| 37-47              | -037124                                 | .000946                 | .007320                  | 001773             | .003514           | 007781           |
| 48-60              | 010874                                  | .000155                 | 006562                   | .000810            | .000076           | 000138           |
| POWER SPE          | CTRUM                                   |                         |                          |                    |                   |                  |
| K                  | ı                                       | J                       | ٧                        |                    | <b>u</b>          | T                |
|                    | 10E-                                    | -01                     | 10E-02                   | 10E                | -02               | 10E-02           |
| 0                  | .007                                    | 7074                    | .017804                  | - 00               | 5053              | .004552          |
| 1                  | .102                                    | 2114                    | .296462                  |                    | 5353              | .069699          |
| 2                  |   | 277                     | .523919                  | . 13               | 6341              | .104550          |
| 3                  |   | 895                     | .774381                  |                    | 2699              | .132949          |
| 4                  | •151                                    | 1507                    | .730705                  | .17                | 9709              | -114376          |

| K     | U       | v       | W         | Ţ        |
|-------|---------|---------|-----------|----------|
|       | 10E-01  | 10E-02  | 1 OE - 02 | 10E-02   |
| 0     | .007074 | .017804 | .005053   | .004552  |
| 1     | .102114 | .296462 | .075353   | . 069699 |
| 2     | .159277 | .523919 | . 136341  | .104550  |
| 2     | .201895 | .774381 | .202699   | .132949  |
| 4     | .151507 | .730705 | .179709   | -114376  |
| 5     | .093919 | .577940 | .153500   | .082298  |
| 6     | .091646 | .517220 | .194340   | .077762  |
| 7-8   | .078931 | .433894 | .172170   | .069289  |
| 9-11  | .046758 | .322475 | . 154194  | .048884  |
| 12-15 | .028262 | .287143 | .121633   | .027570  |
| 16-20 | .020231 | .156787 | . 094007  | -017944  |
| 21-27 | .013951 | .131323 | .061257   | .011318  |
| 28-36 | .008138 | .082266 | . 044403  | .007237  |
| 37-47 | .005841 | .051835 | .032742   | .004422  |
| 48-60 | .003775 | .026479 | • 022393  | .002223  |

NAM NO. 81C - 16H 11-02-62 0213-0318 EST 301 POINT RAMMING MEAN, 10 POINT BLOCK AVERAGE

| n        | U,Y              | U, W                      | U.T      | V.W                | V,T              | W.T              |
|----------|------------------|---------------------------|----------|--------------------|------------------|------------------|
|          | 0.51448          | 0.27693                   | 0.21154  | 0.17538            | 0.13396          | 0.72110          |
|          | 106-01           | 10E-01                    | 10E-01   | 10E-01             | 10E-01           | 10E-02           |
|          | 105-01           | 105-01                    | 105-01   | 105-01             | 105-01           | # OE - 02        |
| 0        | 062041           | 482467                    | .630099  | . 109941           | 092532           | 345879           |
| ĭ        | .009498          | 115006                    | .180440  | 070353             | .020612          | .000733          |
| ż        | 022986           | 112666                    | .007648  | 013881             | 000385           | 079060           |
| 3        | 007206           | 057810                    | 007321   | 050270             | .038053          | 016283           |
| 4        | .001180          | 081750                    |          | .027623            |                  | 028793           |
| •        | . 001140         | -1001130                  | 023776   | • OE 1023          | .046055          | 020173           |
| 5        | 008204           | .022692                   | 040471   | .025171            | 029336           | 019218           |
| 6        | 025939           | .018747                   | .021536  | .034933            | 037482           | 002150           |
| i        | .061847          | .068408                   | 000913   | .030445            | .019331          | .070551          |
| i        | 120140           | .070465                   | 034271   | .052063            | 002732           | .077639          |
| •        | 035701           | .126392                   | 102190   | 037332             | 051302           | .080177          |
|          | -4033101         | . 120376                  | -1102170 | 031332             | -1071205         | .000111          |
| 10       | .016273          | -115565                   | 187543   | 024177             | .001644          | .091962          |
| 11       |                  |                           |          |                    |                  |                  |
|          | -01/187          | -142531                   | 147438   | 013234             | 024157           | .035698          |
| 12       | 001+63           | •099625                   | 156793   | .079911            | .008692          | .009569          |
| 13       | 007530           | -118303                   | 071376   | .079933            | 004763           | .083822          |
| 14       | 016581           | .110107                   | .013029  | 041366             | 014343           | 009345           |
|          | 040075           | 071050                    | 000471   | 000443             | 000740           | 020450           |
| 15       | - 060075         | .071959                   | .023671  | 029467             | 000760           | .029450          |
| 16       | .039463          | .020225                   | 041670   | 056509             | .050724          | .043317          |
| 17       | 029397           | 000425                    | 018227   | 030919             | 012005           | 020921           |
| 18       | .053270          | 011244                    | .034914  | 075865             | 011338           | -014424          |
| 19       | . 105446         | 084701                    | .056532  | 071442             | .066517          | 083060           |
|          | 007004           | 47171                     | 050043   | 05/703             | 001117           | 047340           |
| 20       | . 095204         | 071316                    | .050267  | 056793             | .054167          | 067349           |
| 21       | 016989           | 091902                    | .087691  | .081026            | 002093           | 086864           |
| 22       | .043448          | 071230                    | .125180  | 049623             | .008029          | 046401           |
| 23       | 053233           | 068792                    | .055021  | .014802            | 050440           | 046076           |
| 24       | 063561           | 098592                    | .026309  | .082793            | 048391           | 035322           |
|          |                  |                           |          |                    | 000150           |                  |
| 25       | .035584          | 057526                    | 026466   | .010311            | .038159          | 006877           |
| 26       | 016029           | 043103                    | .004259  | 037311             | .033762          | 000062           |
| 27       | 016955           | .045445                   | .003245  | 051545             | .022317          | .136048          |
| 28       | 032123           | 028705                    | 009816   | .077015            | 078761           | 056035           |
| 29       | .025997          | 067117                    | 013745   | 005709             | .035596          | .029827          |
|          |                  |                           |          |                    |                  |                  |
| 30       | 007559           | 004527                    | 001177   | 001806             | 008685           | .021918          |
|          |                  |                           |          |                    |                  |                  |
| COCRECTE |                  |                           |          |                    |                  |                  |
| COSPECTR | N.               |                           |          |                    |                  |                  |
|          |                  |                           | 43. 🔻    | W 14               | V T              | u •              |
| K        | U.V              | U, W                      | U,T      | V, W               | V,T              | W, T             |
|          |                  |                           |          |                    |                  |                  |
|          | 10E-03           | 10E-02                    | 10E-02   | 10E-03             | 105-03           | 105-02           |
|          | 106-03           | 105-02                    | 106-02   | 105-03             | 10E-03           | 10E-03           |
| J        | 077426           | 001618                    | .002470  | 001608             | 005683           | 005087           |
| ĭ        | 750592           | 070523                    | .044715  | .106700            | 045552           | 067689           |
| ż        | 413495           | 161042                    | .102363  | .026218            | .004919          | 192619           |
| 3        | .300757          | 196698                    | .140783  | 200384             | .083527          | 287608           |
| 1        |                  | 090863                    |          | 165716             | .042962          | 159978           |
| •        | .236118          | -1070003                  | .079399  | 103110             | 1042702          | -6139910         |
|          | 200264           | 034514                    | .031373  | .027192            | 050011           | 074680           |
| 5        | 087020           | 040345                    | .034320  | 097800             | 046882           | 046355           |
| i        | 296882           | 036766                    | .062076  | 174002             | 074141           |                  |
| •        | 404373           | 030912                    |          | .067234            |                  | - 016615         |
|          |                  |                           | .104610  |                    | 106187           | 009283           |
| 9-11     | -150921          | 034702                    | .067927  | -211270            | 098785           | 088995           |
| 12-14    | _ 261161         | - 035703                  | 040313   | 055002             | - 004134         | - 070284         |
| 12-14    | 253351           | 035763                    | .048313  | .055992            | 094136           | 070284<br>085341 |
| 15-21    | 004944<br>344125 | 046618<br>062 <b>6</b> 65 | .052243  | .089511<br>.262417 | 005865<br>116848 |                  |
| 22-30    | -0.244753        |                           | .040831  |                    |                  | 185553           |

RUN NO. 81C 16M 11-02-62 0213-0318 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

| M         | U,V        | U,W               | U, T             | V. W             | V,T               | W.T             |
|-----------|------------|-------------------|------------------|------------------|-------------------|-----------------|
|           | 0.51448    | 0.27693           | 0.21154          | 0.17538          | 0.13396           | 0.72110         |
|           | 10E-01     | 10E-01            | 10E-01           | 10E-01           | 10E-01            | 10E-02          |
| ,         | - 025021   | 040491            | 114427           | - 120443         | 012002            | - 044311        |
| 1         | 025831     | .049681           | .116427          | 128643           | .012092           | 064211          |
| 2         | 028602     | .092216           | .077134          | 025725           | 030090            | 070056          |
| 3         | 034922     | .058447           | -062487          | . 050595         | 016768            | 027142          |
| 4         | 042551     | 020264            | 033931           | 094366           | 009513            | .034290         |
| 5         | 012326     | .008657           | 039136           | 053777           | .021681           | .017077         |
| 6         | .084929    | 017823            | .005375          | - 046508         | 084879            | 054170          |
| 7         | 081358     | 049585            | 027560           | 030411           | .057918           | .000434         |
| 8         | .005026    | 026635            | .078133          | .049618          | 041666            | 052958          |
| 9         | .049196    | .026113           | .073219          | .058371          | 043918            | .031439         |
| 10        | 057959     | .043362           | .036754          | -002224          | 000920            | 039660          |
| 11        | .053720    | .040233           | .005354          | 060011           | 075694            | 033217          |
| 12        | .027175    | 044261            | .066928          | . 054631         | 087076            | 002903          |
| 13        | 021752     | 059459            | .017713          | 080649           | .055739           | .023405         |
| 14        | 011722     | 052020            | .027230          | .028158          | 035895            | .009652         |
| 15        | .056387    | 067167            | 022358           | -069358          | 027304            | .030544         |
| 16        | .036222    | .002853           | 029557           | .091913          | .011304           | .002733         |
| 17        | .032301    | 002178            | .016336          | .014918          | 069848            | 040779          |
| 18        | .024219    | .071036           | 029362           | .016900          | .011704           | -007161         |
| 19        | 071688     | .053137           | .026684          | 025176           | .055127           | .011472         |
| 20        | 058096     | 007173            | .000122          | 017260           | .078507           | -041782         |
| 21        | 034008     | .075169           | 024070           | 020746           | .092557           | 017614          |
| 22        | 036622     | .021249           | 014222           | .032757          | .040718           | 051947          |
| 23        | 078854     |                   |                  |                  |                   |                 |
| 24        |            | -021190<br>007607 | 038339<br>020274 | 001255<br>045013 | .058137<br>083105 | 044874          |
|           | - 017004   |                   |                  | 1 1 2 1 1 7 1    |                   | - : : : - : : : |
| 25        | 017006     | .022391           | .034264          | 073349           | .068545           | 053405          |
| 26        | 027962     | 044863            | 013810           | 027459           | .002733           | .065993         |
| 27        | 017987     | 035672            | .018124          | .013668          | 021287            | .057421         |
| 28        | 004668     | .024435           | .034359          | -010907          | 006312            | .031983         |
| 29        | 014669     | 007253            | 034075           | 063276           | 039143            | .064992         |
| 30        | 018862     | 028804            | 026058           | 041073           | 002032            | .082023         |
| QUADRATUR | E SPECTRUM |                   |                  |                  |                   |                 |
| K         | U, V       | U, W              | U, T             | V,W              | V.T               | W, T            |
|           |            |                   |                  |                  |                   |                 |
|           | 10E-03     | 10E-03            | 10E-03           | 10E-03           | 10E-03            | 10E-04          |
| 1         | .006511    | 054929            | .375944          | .088570          | 199430            | 640670          |
| 2         | 002998     | 036576            | .293399          | 049566           | 190104            | 504178          |
| 3         | 501462     | .249167           | .099485          | 194465           | 000815            | 633851          |
| 4         | 432128     | .304641           | 058752           | 138142           | .082362           | 240238          |
| 5         | 091193     | .041975           | .023248          | ~.146693         | 038626            | 029077          |
| 6         | 405066     | .266367           | .234822          | 277589           | 023996            | 325678          |
| 7         | 431704     | .692191           | .431585          | 219510           | 039630            | 503533          |
| 8         | 087821     | .602764           | .437245          | .060750          | 094972            | 904450          |
| 9-11      | 237552     | .055576           | .372713          | 016149           | .028881           | 767009          |
| 12-14     | . 265035   | -217727           | .065989          | 177865           | 022955            | 671299          |
| 15-21     | _ 267412   | - 127540          | 03/333           | - 214343         | 004304            | 220020          |
| 15-21     | 257413     | 127548            | .036323          | 314363           | .086304           | - 220830        |
| 22-30     | .096757    | .05_463           | .122949          | .042655          | .032969           | 026877          |

RUN NO. 81C 16M 11-02-62 0213-0318 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

| M          | U                                     | v                                       |               |                    |
|------------|---------------------------------------|---|---------------|--------------------|
|            |                                       | •                                       | W             | T                  |
|            | 0.81239                               | 0.32582                                 | 0.94403       | A 55001            |
|            | 10E-01                                | 10E-01                                  | 10E-02        | 0.55081<br>10E-02  |
| 0          | 1.000000                              | 1.000000                                | 1 000000      |                    |
| 2          | -285807                               | 016062                                  | 1.000000      | 1.000000           |
| 2          | .012026                               | 068107                                  | •101597       | •179916            |
| 3          | 033868                                | •040850                                 | -074440       | 005603             |
| 4          | 041856                                |   | .006767       | .008894            |
|            | *041838                               | -012098                                 | ·101721       | 099670             |
| 5          | 053183                                | 087478                                  | 080220        | - 020020           |
| 6          | 000595                                | .087952                                 | 030172        | 029928             |
| 7          | -023946                               | 027818                                  | .000589       | •021880            |
| 8          | 020739                                | 069620                                  | 085496        | 022311             |
| 9          | 108039                                | -084136                                 | 140182        | 001622<br>031758   |
| 10         | 185302                                | -055676                                 |               |                    |
| 11         | 188008                                |   | 124973        | 192871             |
| 12         | 225073                                | 065773                                  | 135183        | 122356             |
| 13         | 157088                                | 072710                                  | 098528        | 117680             |
| 14         | 055428                                | -013872                                 | 185030        | 089806             |
|            |                                       | 112168                                  | 131042        | .011019            |
| 15         | 014676                                | 006241                                  | -, 176056     |                    |
| 16         | .020710                               | .010960                                 | 031372        | .005623            |
| 17         | .019770                               | 035937                                  | 011120        | 076389             |
| 18         | -094837                               | .035804                                 |               | .031305            |
| 19         | .060857                               | .056417                                 | 089140        | 018556             |
| 20         |                                       | *************************************** | .098884       | 002691             |
| 20         | -035433                               | 001592                                  | .046713       | 004050             |
| 21         | .053110                               | .011616                                 | . 120641      |                    |
| 22         | <b>•114725</b>                        | 073088                                  | 008688        | -014129            |
| 23         | ·104093                               | 069550                                  | •107310       | .076263            |
| 24         | .057238                               | 014173                                  | • 092816      | •042660<br>•049833 |
| 25         | 212122                                |   |               | • 049833           |
| 26         | -012108                               | •057893                                 | .083508       | 036773             |
| 27         | •008294                               | 058194                                  | .087032       | -084520            |
| 28         | .017651                               | •037323                                 | 067089        | .048944            |
| 29         | •002797                               | -059499                                 | .127705       | 031545             |
| 67         | .070208                               | 003699                                  | .037531       | 063222             |
| 30         | 069880                                | 113710                                  | 004343        |                    |
|            |                                       |   | .004343       | .052933            |
| POWER SPEC | TRIM                                  |   |               |                    |
|            | · · · · · · · · · · · · · · · · · · · |   |               |                    |
| K          | U                                     | ٧                                       | W             | _                  |
|            |                                       |   |               | T                  |
|            | 10E-02                                | 105.02                                  |               |                    |
|            | 100 02                                | 10E-02                                  | 10E-03        | 10E-03             |
| 0          | .045352                               | .037356                                 | • 005099      |                    |
| 1          | .342697                               | .152891                                 |               | • 032605           |
| 2          | .586245                               | •113392                                 | - 399345      | .239644            |
| 3          | .752826                               | .107630                                 | • 739907      | .321158            |
| 4          | .422581                               | .085407                                 | •779044       | .369780            |
| 8          |                                       | •005407                                 | . 375052      | .259838            |
| 5          | -188428                               | .081356                                 | -265114       | 10130              |
| 6          | .303712                               | .125996                                 | • 349008      | -181356            |
| 7          | -527384                               | .139416                                 |               | . 191294           |
| 8          | -601249                               | -101402                                 | • 340117      | -283579            |
| 9-11       | .392272                               | •105044                                 | • 303296      | -361744            |
|            |                                       | • 100044                                | • 342306      | • 248472           |
| 12-14      | -300518                               | .143154                                 | .280881       | •202151            |
| 15-21      | -300004                               | -184305                                 | . 422337      | •231205            |
| 22-30      | .264284                               | -175587                                 | • 504302      |                    |
|            |                                       |   | • > 0 + 3 0 & | • 227743           |

### RUN NO. 81C 40M 11-02-62 0213-0318 EST

### GROSS STATISTICS

| CLEAR             | WIND         | SPEED 6.44 M/SEC | WIND DIRE     | CTION 330 DEG   |
|-------------------|--------------|------------------|---------------|-----------------|
| STABLE            | SIGMA        |                  | SOLAR RAD     |                 |
| LAND              | SIGMA        | E 1.2 DEG        | NET RADIA     |                 |
|                   |              |                  |               |                 |
|                   |              |                  |               |                 |
|                   | 1            |                  |               |                 |
|                   | WITH NO      | WITH 301 POINT   | WITH 61 POINT | 301 PT RUN MEAN |
|                   | RUNNING MEAN | RUNNING MEAN     | RUNNING MEAN  | 10 PT BLOCK AVG |
| VARIANCES         |              |                  |               |                 |
| *****             |              |                  |               |                 |
| U                 | 0 302/35-00  | 0 714 275 01     | 0 503375 01   | 0.333305.01     |
| v                 | 0.38243E-00  | 0.71427E-01      | 0.59337E-01   | 0.33330E-01     |
|                   | 0.20850E-00  | 0.30960E-01      | 0.27708E-01   | 0.81387E-02     |
| ¥                 | 0.16491E-01  | 0.16411E-01      | 0.15113E-01   | 0.42636E-02     |
| Ţ                 | 0-10486E-00  | 0.222716-01      | 0.19932E-01   | 0.10760E-01     |
| E                 | 0.30371E-00  | 0.59406E-01      | 0.51079E-01   |                 |
|                   |              |                  |               |                 |
| GUSTINESS RATI    | ns           |                  |               |                 |
| 003111(C33   KA11 |              |                  |               |                 |
|                   |              |                  |               |                 |
| U                 | 0.09603      | 0.04150          | 0.03782       | 0.02835         |
| V                 | 0.07090      | 0.02732          | 0.02585       | 0.01401         |
| ¥                 | 0.01994      | 0.01989          | 0.01909       | 0.01014         |
|                   |              |                  |               |                 |
| COVARIANCES       |              |                  |               |                 |
|                   |              |                  |               |                 |
| U,V               | -0.16743E-00 | 0.33550E-02      | 0.38242E-02   | 0.16805E-02     |
| U.W               | 0.31204E-02  | -0.12507E-01     | -0.11433E-01  | -0.45535E-02    |
| U,T               | 0.15395E-00  | 0.24162E-01      | 0.20296E-01   | 0.13282E-01     |
| V,W               | -0.13697E-01 | -0.16956E-02     | -0.16934E-02  | -0.82106E-03    |
| v, ř              | -0.89477E-01 | 0.82723E-03      |               |                 |
|                   |              |                  | 0.10878E-02   | 0.61397E-04     |
| W.T               | 0.13620E-02  | -0.58958E-02     | -0.58708E-02  | -0.20371E-02    |
|                   |              |                  |               |                 |
| WE                | 0.78342E-02  | 0.23191E-02      | 0.21221E-02   |                 |
|                   |              |                  |               |                 |
| NORMALIZED COV    | AR I ANC ES  |                  |               |                 |
|                   |              |                  |               |                 |
| U,V               | -0.59293     | 0.07134          | 0.09431       | 0.10203         |
| U,W               | 0.03929      | -0.36530         | -0.38179      | -0.38198        |
| U, T              | 0.76876      | 0.60580          | 0.59014       | 0.70137         |
| V , W             | -0.23358     | -0.07523         | -0.08275      | -0.13938        |
| V.T               | -0.60514     | 0.03150          | 0.04629       | 0.00656         |
| N,T               | 0.03275      | -0.30839         | -0.33825      | -0.30076        |
| -                 |              |                  |               |                 |

RUN NO. 81C 40M 11-02-62 0213-0318 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| н        | U,V                | U.W                | U,T                | V.W              | V, T             | W, T               |
|----------|--------------------|--------------------|--------------------|------------------|------------------|--------------------|
|          | 0.40543            | 0.29941            | 0.34394            | 0.20460          | 0.23503          | 0.17357            |
|          | 10E-01             | 10E-01             | 10E-01             | 10E-01           | 10E-01           | 10E-01             |
| 0        | .093947            | 381639             | .590004            | 082555           | .045913          | 338154             |
| 1        | .091982            | 255264             | .497926            | 071585           | .046425          | 221485             |
| 2        | .084408            | 127900             | .360889            | 079888           | .041439          | 104195             |
| 3        | .070966            | 061993             | .259699            | 054691           | .027990          | 064374             |
| 4        | .039600            | 023170             | .184298            | 017873           | •004390          | 054252             |
| 5        | .019739            | 000955             | .120365            | .006252          | 012461           | 028932             |
| 6        | .024519            | .030628            | .050979            | 001155           | 018539           | •010220            |
| 7        | .015366            | .035678            | 005362             | .002371          | 026099           | .037086            |
| 8        | .001049            | .020651            | 040685             | .010563          | 017188           | .040300            |
| 9        | 003623             | .016764            | 060094             | .003041          | 009889           | .048642            |
| 10       | 005619             | .023424            | 083313             | .019755          | .003356          | .068529            |
| ii       | .000723            | .039779            | 113489             | .032225          | .019593          | .087430            |
| 12       | .001953            | .035942            | 125943             | .017962          | .030649          | .072636            |
| 13       | .011304            | .028019            | 113174             | 000808           | .028670          | .035943            |
| 14       | .009965            | .041416            | 093666             | 005148           | .024871          | .027816            |
|          |                    |                    |                    |                  |                  |                    |
| 15       | .005635            | .061512            | 086732             | 010693           | .027919          | .037384            |
| 16       | 001962             | .064375            | 075794             | .003602          | •014296          | .034384            |
| 17       | 016311             | .054884            | 079368             | .021210          | .002946          | .029927            |
| 18       | 044399             | .063556            | 095363             | .049007          | 005691           | .041123            |
| 19       | 062859             | .052891            | 107362             | .051885          | 008481           | .048030            |
| 20       | 069339             | .045695            | 121654             | .043774          | 023798           | .056841            |
| 21       | 065799             | .051909            | 126312             | .010724          | 029814           | .058691            |
| 22       | 056324             | .038288            | 122105             | 006871           | 036002           | .055601            |
| 23       | 049041             | .029144            | 113432             | .008581          | 037355           | .038236            |
| 24       | 044175             | .005496            | 101846             | .036989          | 041929           | •016737            |
| 25       | 048555             | .002210            | 096529             | .053527          | 056956           | .004480            |
| 26       | 059119             | .015499            | 097120             | .059957          | 069039           | 002450             |
| 27       | 052338             | .026677            | 103934             | - 027382         | 063194           | .001166            |
| 28<br>29 | 034135<br>023981   | .034765<br>.039656 | 106303<br>096132   | 024090<br>032709 | 049988<br>044413 | .019490<br>.025336 |
| 30       | 028846             | .030475            | 072117             | 014001           | 035223           | .013068            |
| 31       | 020764             | .021734            | 043816             | 005430           | 020226           | 001649             |
| 32       | 020506             | .020667            | 018781             | .025086          | 010852           | 008941             |
| 33       | 015083             | .012724            | .006556            | .062160          | .001809          | 014192             |
| 34       | 017076             | 006606             | -021697            | .075097          | .011332          | 020752             |
| 35       | 026130             | 011681             | .029718            | .057733          | .009223          | 020228             |
| 36       | 026308             | 017161             | .042151            | .007380          | .008792          | 034179             |
| 37       | 012764             | 024287             | .049442            | 028885           | .015745          | 042034             |
| 38       | .000733            | 024437             | .046047            | 022848           | .019950          | 041338             |
| 39       | .013314            | 018252             | .042158            | 037535           | .029242          | 032821             |
| 40       | • 030025           | 016856             | .041065            | 037761           | .034056          | 029649             |
| 41       | • 042056           | 004690             | .025562            | 029567           | .025881          | 014268             |
| 42       | .045505            | .004590            | -006266            | 031237           | .027684          | 001382             |
| 43       | .047596            | .010608            | 008206             | 018225           | .031186          | .004533            |
| 44       | .034186            | 004391             | 013068             | 010599           | .036989          | 002231             |
| 45       | .020236            | 026674             | 002973             | ~.010321         | • 037864         | 012075             |
| 46       | .027239            | 036343             | .013745            | 019235           | .040025          | 010985             |
| 47       | .038880            | 037007             | .026974            | 022019           | .041133          | 001889             |
| 48       | .049255            | 025316             | -039322            | 046560           | -044440          | 007819             |
| 49       | .042379            | 028086             | .050479            | 052608           | .041285          | 019794             |
| 50       | .031083            | 037998             | -057806            | 017523           | .023595          | 029098             |
| 51       | .029885            | 045499             | .065207            | 008480<br>014202 | .003812          | 029432             |
| 52<br>53 | .031012<br>.038552 | 052233<br>041069   | .069206<br>.059520 | 014202           | 004797<br>000048 | 031071<br>032513   |
| 54       | .039279            | 032192             | .045364            | 024845           | •019966          | 020654             |
| 55       | .039279            | 014899             | .027021            | 003995           | .029146          | .000279            |
| 56       | .023981            | 012821             | .010924            | .001702          | .020097          | .005099            |
| 57       | .019306            | 010064             | .002381            | .027823          | .009060          | .002185            |
| 58       | 006303             | 004555             | 004828             | .049206          | 014076           | 008645             |
| 59       | 021683             | 000851             | 011984             | .029846          | 028150           | 005648             |
| 60       | 026749             | .019459            | 018342             | .004867          | 029915           | .008533            |

RUN NO. B1C 40M 11-02-62 0213-0318 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| HORNING. | TED GONDANIOND    | COTANTANGE         |                    |                   |                    |                    |
|----------|-------------------|--------------------|--------------------|-------------------|--------------------|--------------------|
| H        | U,V               | U.W                | U,T                | V.W               | V, T               | WeT                |
|          |                   |                    |                    | 0.00440           | 0 22502            | 0 17257            |
|          | 0.40543<br>10E-01 | 0.29941<br>10E-01  | 0.34394<br>10E-01  | 0.20460<br>10E-01 | 0.23503<br>10E-01  | 0.17357<br>10E-01  |
|          | 101 01            | 100 01             |                    | .02 01            |                    |                    |
| 1        | .001902           | 004102             | .042534            | 002694            | 020550             | .051826            |
| 2        | .000041           | 011688             | .062737            | .006516           | 023616             | .076882            |
| 3        | 009697            | 022210             | .077676            | 008049            | 024566             | .091795            |
| 4        | .000837           | 034398             | .091337            | 018824            | 022723             | .099986            |
| 5        | .004928           | 044774             | .102222            | 013286            | 026358             | .087457            |
| 6        | .009205           | 057586             | .107922            | 012853            | 014328             | .074722            |
| 7        | .007395           | 059039             | .103768            | 005933            | .000785            | .064285            |
| 8        | .001172           | 049001             | .092110            | .014549           | .008422            | .049081            |
| 9        | 017387            | 044873             | .079138            | .031900           | .010634            | .043152            |
| 10       | 043949            | 037098             | .078651            | .005390           | .017229            | .042643            |
|          |                   |                    |                    |                   |                    |                    |
| 11       | 064502            | 018704             | .062506            | 024677            | .028590            | .038385            |
| 12       | 046056            | .001472            | .044766            | 027498            | .027527<br>.026101 | .036876            |
| 13<br>14 | 027539<br>014069  | .011900<br>.013643 | .037375<br>.040011 | 018297<br>023938  | •022075            | .024248            |
| 15       | 008287            | .008144            | .048994            | 033950            | .014822            | .007465            |
| 17       | .000207           | ******             | •040774            | 0 3 3 7 3 0       | *014022            |                    |
| 16       | 020278            | .011953            | .049438            | 053424            | .022244            | 012741             |
| 17       | 030007            | .011565            | .041735            | 041517            | .031353            | 021043             |
| 18       | 020882            | .007504            | .036216            | 033255            | .043844            | 026426             |
| 19       | 011907            | 001619             | .032053            | 025906            | .037562            | 027951             |
| 20       | 008437            | 004309             | .026927            | 033555            | .026874            | 028455             |
| 21       | 005824            | .016517            | .013793            | 032053            | .020860            | 033499             |
| 22       | .007379           | .035628            | .002711            | 016572            | .013452            | 028933             |
| 23       | .011520           | .027319            | 001264             | 008592            | .011239            | 022530             |
| 24       | .013486           | .009203            | .000966            | .011498           | .012132            | 007607             |
| 25       | .010178           | .013392            | 006688             | .015142           | .008912            | .005487            |
| _        |                   |                    |                    | - 275             |                    |                    |
| 26       | 002664            | -013829            | 020187             | .018697           | 004660             | .001713            |
| 27       | 019316            | .016673            | 035007             | .017830           | 013506             | 011806             |
| 28<br>29 | 033069<br>047888  | .020095<br>003326  | 046170<br>051073   | .015733<br>004635 | 011896<br>005203   | 020944<br>018342   |
| 30       | 047752            | 021977             | 043854             | 022467            | .005784            | 006152             |
| 30       | •041172           | .021711            | *******            | *022 401          | *******            | .000172            |
| 31       | 040383            | 037767             | 033326             | 033302            | .011171            | .001064            |
| 32       | 034389            | 037603             | 026808             | 018614            | .005454            | 005994             |
| 33       | 013088            | 027867             | 021076             | .015128           | 000045             | 009702             |
| 34       | .006392           | 013202             | 022992             | .038832           | 001307             | 012650             |
| 35       | .032322           | 005898             | 026712             | .048804           | 006976             | 005230             |
| 36       | .048251           | 009561             | 027131             | .038580           | 011269             | .009455            |
| 37       | .045141           | 021736             | 024021             | .028331           | 018867             | .025892            |
| 38       | .041125           | 014244             | 029235             | .034883           | 038296             | .018629            |
| 39       | .036307           | 002827             | 032460             | .036921           | 048971             | .010871            |
| 40       | .025643           | 004704             | 029208             | .024292           | 057019             | .008344            |
|          | 017051            | 0170/0             | 022501             | 010407            | 055043             | 005225             |
| 41       | .017951           | 017068             | 022501             | .018687           | 055061<br>042365   | .005225            |
| 43       | .010588           | 026783<br>029906   | 024360<br>027004   | .012033           | 042365<br>022277   | .018251<br>.011550 |
| 44       | .018187           | 038106             | 021722             | .028262           | 002577             | .003935            |
| 45       | .016553           | 027359             | 011598             | .013548           | .00176             | .002499            |
|          |                   |                    |                    | · -               |                    |                    |
| 46       | .019037           | 006541             | 003038             | .005326           | .006334            | .002669            |
| 47       | .006441           | .007731            | .000536            | 015703            | .010776            | .003157            |
| 48       | .003953           | .034132            | .003938            | 022466            | .012524            | 009761             |
| 49       | .003407           | .047590            | .009546            | 031995            | .002559            | 017457             |
| 50       | 010384            | .046769            | .005996            | 028124            | 007405             | 010354             |
| 51       | .001733           | .046284            | 005835             | 015249            | 018910             | 009627             |
| 52       | .001857           | .037564            | 010772             | 027717            | 025406             | 003482             |
| 53       | 005012            | .023214            | 006014             | 026890            | 016622             | 005035             |
| 54       | 007519            | .012652            | .002303            | 012495            | 002584             | .001588            |
| 55       | 007486            | 005747             | .007430            | 002062            | .010340            | .011039            |
| 56       | m 013940          | 004945             | .010055            | - 009477          | 025020             | 002025             |
| 57       | 013869<br>024132  | .004845<br>.021834 | .010855<br>.005635 | 008677<br>022542  | .025028<br>.038905 | •002025<br>•005220 |
| 58       | 024645            | .030460            | .008923            | 017895            | .038565            | 001493             |
| 59       | 013177            | .024024            | .008978            | .004326           | .035375            | 016886             |
| 60       | .010868           | .014852            | .010214            | .007036           | .019846            | 026821             |
|          |                   |                    |                    |                   |                    |                    |

RUN NO. 81C 40M 11-02-62 0213-0318 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| M        | U                   | ٧                  | W                  |                   |
|----------|---------------------|--------------------|--------------------|-------------------|
|          | _                   | •                  |                    | Т                 |
|          | 0.59330             | 0.27705            | 0.15109            | 0.19938           |
|          | 10E-01              | 10E-01             | 10E-01             | 10E-01            |
|          |                     |                    | -                  |                   |
| 0        | 1.000000            | 1.000000           | 1.000000           | 1.000000          |
| 1        | .756991             | •579603            | • 496343           | .795573           |
| 2        | -500122             | .223935            | -168864            | •535880           |
| 3        | .327935             | .062496            | .059880            | .363179           |
| 4        | •192094             | 014529             | .023311            | -244250           |
| 5        | 000300              | 0.20075            | 22.200             |                   |
| 6        | •090290             | 039975             | 002589             | .136976           |
| 7        | •005998<br>-•048422 | 037161             | 025334             | .033557           |
| 8        | 065269              | 025651<br>041425   | 029995             | 038755            |
| 9        | 071997              | 059182             | 013810             | 079592            |
| 1.41     |                     | 037182             | 017361             | 108490            |
| 10       | 086635              | 076580             | 036470             | - 120016          |
| 11       | 116683              | 074111             | 067664             | 138815            |
| 12       | 137725              | 061570             | 049106             | 171083            |
| 13       | 136570              | 068358             | 016596             | 180999<br>168372  |
| 14       | 129088              | 100426             | 065424             | 156583            |
|          |                     |                    |                    | *************     |
| 15       | 122295              | 088474             | 121853             | 148215            |
| 16       | 116598              | 076860             | 154019             | 146142            |
| 17       | 125009              | 084264             | 125269             | 150002            |
| 18       | 144253              | 094367             | 124511             | 160625            |
| 19       | 158812              | 103441             | 115291             | 164304            |
|          | Ti. 650             |                    |                    |                   |
| 20       | 169834              | 088633             | 091647             | 158426            |
| 21       | 172567              | 084333             | 100025             | 157146            |
| 22       | 160456              | 085242             | 094218             | 154503            |
| 23<br>24 | 151052              | 068947             | 080386             | 145259            |
| 4        | 150400              | 017026             | 048366             | 134156            |
| 25       | 152130              | 001270             | 001100             | 4.4.7.1.40        |
| 26       | 147984              | .001370            | 034120             | 130468            |
| 27       | 143665              | 026456<br>068482   | 036782             | 134262            |
| 28       | 125047              | 073519             | 063305             | 139153            |
| 29       | 098228              | 049884             | 091781<br>095040   | 140244            |
|          |                     |                    | ************       | 120986            |
| 30       | 070935              | 013271             | 055932             | 077983            |
| 31       | 030184              | .009489            | 006418             | 031266            |
| 32       | .002816             | .001001            | .001411            | .005903           |
| 33       | .024773             | 006070             | 004609             | .037533           |
| 34       | .038464             | 021126             | .011301            | .054081           |
|          |                     |                    |                    |                   |
| 35       | .041942             | 039376             | .005630            | .061367           |
| 36       | .051856             | 045955             | .027408            | .065603           |
| 37<br>38 | -056966             | 034425             | .041059            | .056806           |
| 39       | .046371             | 019451             | .036327            | •042160           |
| 37       | .038532             | .001074            | -045183            | .033784           |
| 40       | .034116             | 024200             | 027/00             |                   |
| 41       | .022626             | •026388<br>034804  | .027689            | .037376           |
| 42       | .006051             | .036804<br>.034631 | •025602<br>•016457 | •021292           |
| 43       | .003415             | .022992            | •012094            | • 000959          |
| 44       | .009217             | .042126            | .043997            | 005120<br>.005073 |
|          |                     |                    | .043771            | • 003073          |
| 45       | .018277             | .052969            | .065618            | .020829           |
| 46       | .033827             | .036722            | .083482            | .030287           |
| 47       | .043190             | 010678             | .053220            | -041581           |
| 48       | •040602             | 022811             | .018202            | .056764           |
| 49       | .036281             | 000984             | .028865            | .061163           |
|          |                     |                    |                    |                   |
| 50       | .025329             | .016579            | .051733            | .056842           |
| 51       | -028224             | .020543            | .058594            | .060963           |
| 52       | .042456             | .025770            | .027365            | .066728           |
| 53       | .041345             | •053020            | .016830            | .062265           |
| 54       | .041764             | .083256            | .009757            | •050173           |
| 55       | .037453             | 004701             | _ 00001            | ****              |
| 56       | .025273             | .094791            | 022214             | .033696           |
| 57       | .023043             | .082545<br>.064069 | 001834             | -019746           |
| 58       | .015568             | .062025            | .029185            | -008177           |
| 59       | .009604             | .042410            | .025186<br>.021912 | 005172            |
|          | •••••               |                    | • JE171E           | 018605            |
| 60       | 019822              | .013152            | 000933             | 019193            |
|          |                     |                    |                    |                   |

RUN NO. BIC 40M 11-02-62 0213-0318 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| COSPECTRUM  |          |         |         |         |         |         |
|-------------|----------|---------|---------|---------|---------|---------|
| К           | U,V      | U s W   | U, T    | V,W     | V,T     | W, T    |
|             | 10E-03   | 10E-02  | 10E-02  | 106-03  | 10E-03  | 10E-03  |
| 0           | 011303   | .000034 | .009736 | .011809 | 016410  | .002670 |
| 0<br>1      | .438217  | 031847  | .144975 | 083843  | .051036 | 087664  |
| 2           | . 959893 | 073958  | .242383 | 267132  | .270695 | 319544  |
| 2<br>3<br>4 | .946517  | 102218  | .303539 | 306596  | .231202 | 573564  |
| 4           | .282564  | 086763  | .227967 | 163919  | 138873  | 537260  |
| 5           | .023283  | 071288  | .162178 | 155896  | 147751  | 409028  |
| 6           | . 139554 | 061391  | .164590 | 138503  | .114570 | 390620  |
| 7-8         | .340173  | 047838  | .128326 | 142909  | .243155 | 339267  |
| 9-11        | .190937  | 057127  | .056944 | 087910  | .142038 | 183824  |
| 12-15       | .004319  | 035041  | .038165 | 007164  | .000127 | 118804  |
| 16-20       | .022838  | 022637  | .019450 | 026762  | 013448  | 122105  |
| 21-27       | 041156   | 017519  | .019601 | .027746 | 011927  | 114387  |
| 28-36       | 004663   | 012415  | .007758 | .020600 | 007623  | 077106  |
| 37-47       | .019828  | 007370  | .004411 | 017674  | .006844 | 038165  |
| 48-60       | 008923   | 004962  | .002057 | 017592  | 003847  | 021974  |
|             | SPECTRUM |         |         |         |         |         |

| QUADRATURE            | SPECTRUM     |         |         |         |         |          |
|-----------------------|--------------|---------|---------|---------|---------|----------|
| K                     | U <b>, V</b> | U. W    | U.T     | V.W     | V.T     | WeT      |
|                       | 10E-03       | 10E-03  | 10E-02  | 10E-03  | 10E-03  | 10E-03   |
| 1                     | 398470       | 147054  | .052544 | 132513  | .165486 | .091735  |
| 2                     | 407524       | 088342  | .096507 | 212032  | .229769 | .164886  |
| 3                     | 171998       | 242780  | .112625 | 123472  | .078549 | .329686  |
| 1<br>2<br>3<br>4<br>5 | 027574       | 464727  | .070954 | .087691 | 133339  | .406058  |
| 5                     | 118115       | 354306  | .041341 | .095279 | 141005  | . 323999 |
| 6                     | .155219      | 192418  | .036617 | .081929 | 162396  | .229806  |
| 7-8                   | . 294575     | 113595  | .037567 | 036999  | 087379  | .114177  |
| 9-11                  | .024322      | .082921 | .008373 | 059642  | 095207  | .133176  |
| 12-15                 | 176960       | .042676 | 000550  | .002351 | 006147  | .058595  |
| 16-20                 | .064674      | 000589  | .003497 | .048491 | 018048  | .014120  |
| 21-27                 | 006643       | 007405  | .003982 | 020360  | 006972  | .006538  |
| 28-36                 | .029642      | .018528 | .000392 | .008486 | 012247  | .008136  |
| 37-47                 | 008041       | 007194  | .000938 | 018814  | 001005  | .009171  |
| 48-60                 | 017030·      | .001824 | .000275 | 000394  | 007848  | 001347   |

| POWER SPECTR     | UM      |         |         |         |
|------------------|---------|---------|---------|---------|
| K                | U       | V       | W       | T       |
|                  | 10E-02  | 10E-02  | 10E-02  | 10E-02  |
| 0                | .024026 | .003390 | .000899 | .007651 |
| 1                | .340911 | .079310 | .037270 | .113863 |
| 2                | .563139 | .137590 | .078845 | .195986 |
| 1<br>2<br>3<br>4 | .721179 | .179004 | .107270 | .260184 |
| 4                | .552624 | .163578 | .082712 | -211958 |
| 5<br>6           | .382983 | .143375 | .060302 | .155357 |
| 6                | .385849 | .122753 | .052778 | .148434 |
| 7-8              | .357352 | -113702 | .047252 | .120388 |
| 9-11             | .223638 | .112438 | .059969 | .067604 |
| 12-15            | -147928 | .094212 | .042681 | -041046 |
| 16-20            | .073147 | .076160 | .040328 | .025798 |
| 21-27            | .066865 | .046304 | .029907 | .021578 |
| 28-36            | .040096 | .039253 | .025492 | .012465 |
| 37-47            | .030437 | .026684 | .018703 | .006316 |
| 48-60            | .018135 | -017816 | -014088 | -003910 |

RUN NO. 81C 40M 11-02-62 0213-0318 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

| н        | U,V      | U.W     | U,T     | V,W                                     | V, T    | W. T       |
|----------|----------|---------|---------|---|---------|------------|
|          | 0.16462  | 0.11909 | 0.18924 | 0.58868                                 | 0.93545 | 0.67673    |
|          | 10E-01   | 10E-01  | 10E-01  | 10E-02                                  | 10E-02  | 10E-02     |
| 0        | -102084  | 382352  | .701857 | 139475                                  | .006563 | 301023     |
| 1        | 045032   | .050794 | .156791 | .051284                                 | 020222  | .106361    |
| 2        |          | .058615 |         |   |         |            |
|          | 118246   |         | .012490 | .026984                                 | 033402  | •052268    |
| 3        | 123293   | 011150  | .021483 | .040893                                 | 104298  | 014733     |
| 4        | -022141  | .037369 | 073672  | 076577                                  | .088757 | .012651    |
| 5        | .017894  | 100608  | .014434 | 089401                                  | .012995 | 081553     |
| 6        | 016571   | .048176 | 062674  | 00933 <b>4</b>                          | 013043  | .043219    |
| 7        | .005024  | .047260 | 107100  | 029539                                  | .007319 | .057516    |
| 8        | 011995   | .036399 | 043687  | .047899                                 | 017057  | 018943     |
| 9        | • 090966 | 029873  | 010152  | 069950                                  | .071603 | 009171     |
| 10       | .087052  | .060224 | 080287  | .062224                                 | .051473 | .031701    |
| 11       | 046476   | .046533 | 057313  | .106818                                 | .008235 | 026914     |
| 12       | .058159  | 011151  | 010459  | 066438                                  | .078414 | .001985    |
| 13       | .014355  | 021235  | 024841  | 073762                                  | 009824  | 101801     |
| 14       | 036094   | .088788 | 065569  | 024801                                  | 056953  | .029296    |
|          | 030094   | .000100 |         |   | 070773  | * 02 72 70 |
| 15       | .034038  | .156721 | 010674  | .060685                                 | .074143 | .120177    |
| 16       | .021995  | .018043 | .105671 | .073499                                 | 019786  | .010618    |
| 17       | .053300  | 001452  | .050878 | 007495                                  | .080511 | 015068     |
| 18       | .014809  | 098262  | .089778 | .003943                                 | 031063  | 037381     |
| 19       | 019863   | 030660  | .053428 | .012132                                 | 049322  | 007330     |
|          |          |         |         |   |         |            |
| 20       | .034735  | .059861 | 039553  | 008571                                  | .024646 | .077766    |
| 21       | 052724   | 068013  | .089049 | 022632                                  | 017185  | 116652     |
| 22       | 106868   | 004844  | 131585  | .018688                                 | 087604  | 024625     |
| 23       | .069781  | 067044  | 151421  | 122563                                  | .032863 | .032583    |
| 24       | 021692   | 053505  | 008065  | .031698                                 | 037348  | 044577     |
| 25       | .058395  | .061711 | 148703  | 007134                                  | 011241  | .110753    |
| 26       | .123031  | 061534  | 093142  | 099766                                  | .114072 | 038329     |
| 27       | 044952   | 023369  | .027378 | .124125                                 | 028059  | .017707    |
| 28       | .074471  | 010640  | .021676 | .004290                                 | .024251 | .003779    |
| 29       | .018447  | 055604  | .083583 | 030718                                  | 053633  | 056673     |
| .,       | ******   | •033004 | 1003303 | *************************************** | •033033 | 1030013    |
| 30       | 103458   | 043676  | .035044 | 025877                                  | 071385  | .018524    |
| COSPECTR | UM       |         |         |   |         |            |
| K        | 11-37    | 11 14   |         |   |         | 14-7       |
| •        | U,V      | U,W     | U•T     | V.W                                     | V, T    | W, T       |
|          | 10E-03   | 10E-03  | 10E-03  | 10E-03                                  | 10E-03  | 10E-03     |
|          | 001200   |         | 101705  |   |         | 222122     |
| 0        | 021399   | -030400 | .121785 | 017924                                  | .021212 | 000680     |
| 1        | 242345   | 012714  | .611757 | 056834                                  | .003071 | 005596     |
| 2        | 295768   | 183831  | .605569 | 036496                                  | 094389  | 012227     |
| 3        | 301429   | 198354  | .992858 | 005098                                  | 130134  | 013574     |
| 4        | 147658   | 043373  | .995891 | .032923                                 | 056105  | 007191     |
| 5        | 045166   | 058328  | .577203 | .031279                                 | 015080  | 039121     |
| 6        | .071351  | 149187  | .670024 | . 064284                                | .003463 | 043862     |
| 7        | .203331  | 083279  | .738781 | .079064                                 | .019985 | .025400    |
| 8        | .079905  | .011360 | .505771 | .003689                                 | 040733  | .034652    |
| 9-11     | .155909  | 207087  | .535758 | 056276                                  | .028615 | 068978     |
|          |          |         |         |   |         |            |
| 12-14    | .388737  | 303576  | .577945 | 117740                                  | .117265 | 141017     |
| 15-21    | .105850  | 196467  | .466391 | 031296                                  | 002843  | 094830     |
| 22-30    | .073005  | 337864  | .549828 | 069473                                  | 003702  | 207242     |
|          |          |         |         |   |         |            |

RUN NO. 81C 40M 11-02-62 0213-0318 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

| NORMALIZED | QUADRATURE | COVARIANCE |
|------------|------------|------------|
|------------|------------|------------|

| M        | U, V                | U, W     | U, T                                    | V, W            | V, T                     | W, T               |
|----------|---------------------|----------|---|-----------------|--------------------------|--------------------|
|          | 0.16462             | 0.11909  |   |                 |                          |                    |
|          | 10E-01              | 10E-01   | 0.18924                                 | 0.58868         | 0.93545                  | 0.67673            |
|          | •                   | 100 01   | 10E-01                                  | 10E-02          | 10E-02                   | 10E-02             |
| 1        | 064274              | 050449   | .093072                                 | - 02/000        |                          |                    |
| 2        | 081805              | 008889   | .066383                                 | 036890          | 006164                   | • 116794           |
| 3        | 051923              | 017316   | .006176                                 | 119968          | •071647                  | 018432             |
| 4        | 010540              | 035834   | 026548                                  | 066714          | 026332                   | 012974             |
| 5        | 035899              | .098647  | .026840                                 | 016980          | 042493                   | •001409            |
|          |                     |          | 4020040                                 | 066684          | 062129                   | 035588             |
| 6        | 019096              | -034300  | .042932                                 | 047353          | 0000.0                   |                    |
| 7        | 013445              | .043184  | .018659                                 | 053111          | .022842                  | 022375             |
| 8        | 016161              | -041100  | .017300                                 | 004101          | 041374                   | 023563             |
| 9        | 065538              | 046872   | .017035                                 | 025179          | 064598                   | • 045776           |
| 10       | 105907              | 064317   | 025780                                  | 098095          | • 075642                 | .041589            |
|          |                     |          | *************************************** | ~ 1 0 7 8 0 7 3 | <ul><li>085052</li></ul> | • 058403           |
| 11       | 067032              | 000408   | -010641                                 | 000464          |                          |                    |
| 12       | 047820              | 044941   | .012955                                 |                 | • 035804                 | 001745             |
| 13       | .081808             | 057285   | 043412                                  | 021749          | 002736                   | • 052425           |
| 14       | 010372              | .002393  | 031719                                  | -014114         | 014909                   | • 042894           |
| 15       | 003139              | 001116   | .034015                                 | 009461          | 041053                   | •019703            |
|          |                     |          | 1034013                                 | 018491          | -003748                  | 026928             |
| 16       | .016146             | • 064005 | 011665                                  | 020/21          |                          |                    |
| 17       | • 100371            | -054842  | 041471                                  | .029631         | .080759                  | 027512             |
| 18       | • 090272            | 000491   | 021900                                  | .088899         | 076061                   | .031696            |
| 19       | .021409             | 024076   | 063423                                  | •068998         | .001902                  | 046354             |
| 20       | 074932              | .034161  | 034037                                  | .032572         | ~• 035517                | .008347            |
|          |                     |          | *******                                 | 029879          | • 009399                 | 064824             |
| 21       | • 024152            | 052583   | .066625                                 | - 0224.02       |                          |                    |
| 22       | .048077             | 050343   | 026539                                  | 022403          | 009841                   | 005125             |
| 23       | .003799             | .008245  | .033107                                 | -081401         | 134459                   | .082498            |
| 24       | • 058044            | -024702  | 023330                                  | 016481          | 019752                   | 070035             |
| 25       | 053732              | 006756   | .029878                                 | -016234         | 029197                   | 035231             |
|          |                     |          | .027010                                 | .014474         | • 059974                 | .020944            |
| 26       | 076285              | -021078  | 004905                                  | - 011220        |                          |                    |
| 27       | .027254             | 058862   | 029926                                  | 011220          | .095582                  | .028887            |
| 28       | 054072              | 059637   | 001274                                  | 017848          | 003376                   | •131310            |
| 29       | 006669              | 113384   | .004115                                 | 078247          | .039395                  | 004234             |
| 30       | 036076              | 046968   | 003818                                  | 015906          | .040245                  | .061347            |
|          |                     |          | *003616                                 | 048332          | 004684                   | •009355            |
| OUADDATE | JRE SPECTRUM        |          |   |                 |                          |                    |
|          | THE SPECIALM        |          |   |                 |                          |                    |
| K        | U• V                | U.W      | U, T                                    | V.W             | V T                      |                    |
|          |                     |          |   | ***             | V,T                      | W, T               |
|          | 105-03              | 105 00   |   |                 |                          |                    |
|          | 10E-03              | 10E-03   | 10E-03                                  | 10E-03          | 10E-03                   | 10E-04             |
| 1        | - 2700/1            |          |   |                 |                          | 105-04             |
| 2        | 278841              | 009633   | .024700                                 | 107140          | 014299                   | .640405            |
| 3        | 377847              | .017668  | .168801                                 | 148852          | .010298                  | .432714            |
| 4        | 283021              | .071725  | .231985                                 | 132481          | 061387                   | 205406             |
| 5        | • 020274            | -128152  | .117053                                 | 050578          | 110706                   | 755305             |
| ,        | .027335             | .022947  | .076507                                 | 042967          | 043913                   |                    |
| 6        | - 2003/0            |          |   | 2.4.            | ,,,,,                    | 288556             |
| 7        | 200349              | 198394   | .090265                                 | 076605          | .018327                  | . 397635           |
| 8        | 315000              | 235711   | .044121                                 | 063575          | • 128145                 |                    |
| 9-11     | 225190              | 110446   | .123834                                 | 034295          | • 155759                 | - 726064           |
| 12-14    | 029310              | 037274   | -210496                                 | 030077          | .001534                  | -684824<br>-551632 |
| -6 17    | ~•180790            | .021317  | .243180                                 | 057469          | .108321                  | .255568            |
| 15-21    | 025242              | 0754     |   |                 |                          | • 6 22208          |
| 22-30    | •025242<br>••010045 | 075644   | -041489                                 | .030975         | 056272                   | .842815            |
|          | • 010043            | .030975  | .044489                                 | .021482         | 080593                   | • 326951           |
|          |                     |          |   |                 |                          | * / LU7/1          |

RUN NO. 81C 40M 11-02-62 0213-0318 EST 301 POINT RUNNPNG MEAN, 10 POINT BLOCK AVERAGE

| M             | U                 | V                 | w                  | T                 |
|---------------|-------------------|-------------------|--------------------|-------------------|
|               | 0.33303<br>10E-01 | 0.81373<br>10E-02 | 0.42587<br>10E-02  | 0.10754<br>10E-01 |
| 0             | 1.000000          | 1.000000          | 1 000000           |                   |
| ĭ             | -260145           | •072254           | 1.000000           | 1.000000          |
| ž             | .041798           | 024203            | .012576            | .104024           |
| 3             | .067979           | .112955           | 071434<br>038638   | 022670            |
| 4             | 058955            | 033150            | . 132836           | 002979<br>102244  |
| 5             | -000038           | .105867           | .165253            | .029320           |
| 6             | 027397            | .132680           | 109042             | 101595            |
| 7             | 099120            | 080356            | 041774             | 112094            |
| 8             | 057636            | .030098           | 028284             | 004564            |
| 9             | .028013           | 039523            | .021433            | 034377            |
| 10            | 082979            | .027218           | 210417             | 055270            |
| 11            | 115856            | .044187           | 158826             | 002838            |
| 12            | 018844            | 175355            | 095092             | 106795            |
| 13            | 107896            | 091086            | 012660             | 004854            |
| 14            | 139848            | .001956           | 115571             | 042788            |
| 15            | 026316            | 212895            | 273738             | 004248            |
| 16            | .097304           | .116096           | 111086             | .109882           |
| 17            | .051401           | 002493            | .079335            | .030586           |
| 18            | .165190           | 095546            | .030088            | .071185           |
| 19            | .095187           | .089192           | 000853             | .069029           |
| 20            | .020615           | 108256            | 084211             | 127545            |
| 21            | -049760           | 058914            | .156360            | •122531           |
| 22            | 205959            | .128814           | .007976            | 182268            |
| 23            | 186451            | 044217            | .080534            | 140001            |
| 24            | 050927            | 027549            | .048240            | .069709           |
| 25            | 106475            | .002459           | .034076            | 183225            |
| 26            | 111014            | 137471            | . 282442           | 027028            |
| 27            | 012265            | 044180            | .069268            | .007458           |
| 28            | .004921           | .052813           | .059932            | 013451            |
| 29            | .082992           | 105515            | .055380            | .035634           |
| 30            | 706454            | 000419            | .100806            | .063614           |
| POWER SPECTRU | JM                |                   |                    |                   |
| K             | U                 | V                 | W                  | T                 |
|               | 10E-02            | 10E-03            | 10E-03             | 10E-03            |
| 0             | -050164           | .151108           | .005678            | .068171           |
| 1             | .227771           | .660220           | .163886            | .374207           |
| 2             | .198390           | .481970           | .277851            | .369552           |
| 3             | -260442           | .374394           | .255008            | .574607           |
| 4             | -216337           | -200975           | .088259            | .619231           |
| 5             | -116207           | .156494           | .047450            | .423291           |
| 5<br>6        | -179733           | -240986           | .082932            | .473807           |
| .7.           | -208074           | -298154           | .094937            | .563724           |
| 8             | .121879           | .257124           | .089678            | .432342           |
| 9-11          | -126176           | .323911           | .168205            | .397973           |
| 12-14         | -134000           | .348952           | 200200             | 40400:            |
| 15-21         | -128216           | .352273           | . 289399           | .494034           |
| 22-30         | -116278           | • 449236          | •170564<br>•255611 | -400875           |
| -20           | • 1 1021          | • 777630          | • 2 2 2 6 1 1      | .592151           |

RUN NO. 81C 16M 11-02-62 0213-0318 EST RUN NO. 81C 40M 11-02-62 0213-0318 EST 61 POINT RUNNING HEAN. NO BLOCK AVERAGING

#### COHERENCE WITH QUADRATURE

| K           | U       | ٧       | W        | T       |
|-------------|---------|---------|----------|---------|
|             | 10E 00  | 10E 00  | 10E 00   | 10E 00  |
| 0           | .367632 | •250950 | .381398  | .165574 |
| 1           | .221253 | -230596 | -189380  | .275899 |
| 1<br>2<br>3 | .086954 | .315353 | .195662  | .188589 |
| 3           | .179155 | .368528 | . 204503 | .294018 |
| 4           | -122209 | .431017 | .135266  | .385116 |
| 5           | -037137 | .354143 | -229641  | -286021 |
| 6           | .040316 | .180745 | . 244593 | .031205 |
| 7-8         | .085903 | .100018 | .251376  | .069979 |
| 9-11        | .132327 | .068713 | . 340965 | .201277 |
| 12-15       | -119808 | -122852 | .149336  | .096786 |
| 16-20       | -121703 | .102723 | .094721  | .138760 |
| 21-27       | .067727 | .114041 | .198269  | .081562 |
| 28-36       | -136224 | .091133 | .131671  | .079931 |
| 37-47       | .128572 | .087574 | .054607  | .127859 |
| 48-60       | .135927 | .153534 | .133332  | .154971 |

### 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

### COHERENCE WITH QUADRATURE

| K     | U       | v       | W        | T       |
|-------|---------|---------|----------|---------|
|       | 10E 00  | 10E 00  | 10E 00   | 10E 00  |
| 0     | .823509 | .855122 | .477567  | .179342 |
| 1     | .509673 | .692441 | . 382948 | .271009 |
| 2     | .351574 | .207317 | .569550  | .301903 |
| 3     | .376953 | .277561 | .483706  | .404165 |
| 4     | .359104 | .333596 | .339819  | .359084 |
| 5     | .293635 | .231751 | .419809  | .280243 |
| 6     | .580648 | .311803 | .282900  | .336887 |
| 7     | .659431 | .225406 | .216395  | .315733 |
| 8     | -689605 | .048536 | 129225   | .413663 |
| 9-11  | .367483 | .392807 | .421833  | .319587 |
| 12-14 | .327099 | •500540 | .378547  | .356917 |
| 15-21 | -286874 | .441919 | .227516  | .366904 |
| 22-30 | -149459 | .351802 | . 372043 | .367472 |

### RUN NO. 82A 16M 11-02-62 0356-0511 EST

#### GROSS STATISTICS

| CLEAR<br>Stable<br>Land | WIND SP<br>SIGMA A<br>SIGMA E | 5.6 DEG                        | WIND DIRE<br>SOLAR RAD<br>NET RADIA |                                    |
|-------------------------|-------------------------------|--------------------------------|-------------------------------------|------------------------------------|
|                         | WITH NO<br>RUNNING MEAN       | WITH 301 POINT<br>RUNNING MEAN | WITH 61 POINT<br>RUNNING MEAN       | 301 PT RUN MEAN<br>10 PT BLOCK AVG |
| VARIANCES               |                               |                                |                                     |                                    |
| U                       | 0.44896E-00                   | 0.12554E-00                    | 0.10519E-00                         | 0.63812E-01                        |
| ٧                       | 0.12726E-00                   | 0.50029E-01                    | 0.53874E-01                         | 0.18584E-01                        |
| W                       | 0.23142E-01                   | 0.23217E-01                    | 0.21883E-01                         | 0.55718E-02                        |
| T                       | 0.48350E-01                   | 0.11556E-01                    | 0.97222E-02                         | 0.62653E-02                        |
| E                       | 0.29968E-00                   | 0.10340E-00                    | 0.90474E-01                         |                                    |
| GUSTINESS RATI          | os<br>                        |                                |                                     |                                    |
| U                       | 0.18208                       | 0.09628                        | 0.08813                             | 0.06864                            |
| v                       | 0.09694                       | 0.06546                        | 0.06307                             | 0.03704                            |
| W                       | 0.04134                       | 0.04141                        | 0.04020                             | 0.02028                            |
| COVARIANCES             |                               |                                |                                     |                                    |
| U.V                     | 0.73010E-03                   | 0.18220E-02                    | 0.24823E-02                         | -0.32016E-03                       |
| U,W                     | -0.10266E-01                  | -0.19751E-01                   | -0.17954E-01                        | -0.85461E-02                       |
| U•T                     | 0.56253E-01                   | 0.22318E-01                    | 0.18065E-01                         | 0.13515E-01                        |
| V, W                    | 0.12147E-03                   | -0.29942E-03                   | -0.22191E-03                        | 0.18059E-03                        |
| V, T                    | -0.31955E-01                  | 0.97784E-03                    | 0.87500E-03                         | 0.11146E-03                        |
| ₩øT                     | -0.58622E-02                  | -0.62224E-02                   | -0.55826E-02                        | -0.23064E-02                       |
| WE                      | -0.15131E-02                  | 0.40691E-03                    | 0.10115E-03                         |                                    |
| NORMALIZED COV          | ARIANCES                      |                                |                                     |                                    |
|                         |                               |                                |                                     |                                    |
| U,V                     | 0.00305                       | 0.02135                        | 0.03297                             | -0.00930                           |
| U.W                     | -0.10072                      | -0.36584                       | -0.37420                            | -0.45323                           |
| U,T                     | 0.38181                       | 0.58595                        | 0.56488                             | 0.67592                            |
| V , W                   | 0.00224                       | -0.00816                       | -0.00546                            | 0.01775                            |
| V. T                    | -0.40738                      | 0.03776                        | 0.03823                             | 0.01033                            |
| WeT                     | -0.17525                      | -0.37988                       | -0.38274                            | -0.39035                           |

RUN NO. 82A 16M 11-02-62 0356-0511 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| M  | U, V     | U, M     | U.T     | V.H     | V,T     | y.T     |
|----|----------|----------|---------|---------|---------|---------|
|    | 0.75300  | 0.47984  | 0.31983 | 0.34342 | 0.22890 | 0.14586 |
|    | 10E-01   | 10E-01   | 10E-01  | 10E-01  | 10E-01  | 10E-01  |
| 0  | .032935  | 374177   | .564782 | 006342  | .038468 | 382623  |
| 1  | .023361  | 292084   | .494102 | 003109  | .027336 | 277345  |
| 2  | .008772  | 180045   | .374883 | .017238 | .008571 | 150154  |
| 3  | 010836   | 106205   | .275072 | .037244 | 010921  | 069797  |
| 4  | 019910   | 058920   | .197543 | .045678 | 022711  | 020777  |
| 5  | 019209   | 025107   | .137427 | .028680 | 023840  | 001100  |
| 6  | 006059   | 006527   | .087169 | .016975 | 019504  | .011149 |
| 7  | .014798  | .010718  | .044825 | .005559 | 006766  | .020629 |
| 8  | .031064  | .027996  | .008799 | 010517  | .009309 | .030290 |
| 9  | .029481  | .035519  | 025452  | 014717  | .017306 | .043006 |
| 10 | .023854  | .034536  | 046483  | 015945  | .017805 | .037380 |
| 11 | .015994  | .038705  | 060793  | 021636  | .016290 | .029723 |
| 12 | .012392  | .041667  | 077941  | 026772  | .022338 | .028819 |
| 13 | .005373  | .052633  | 089478  | 021607  | .019721 | .030264 |
| 14 | 006634   | .056914  | 096990  | 006277  | .016983 | .031372 |
| 15 | 009312   | .058020  | 109305  | .006598 | .015075 | .039507 |
| 16 | 015050   | .061160  | 123779  | .016803 | .003376 | .048788 |
| 17 | 020550   | .063346  | 128295  | .027224 | 014677  | .053458 |
| 18 | 016678   | .054589  | 122442  | .033532 | 026645  | .044006 |
| 19 | 015094   | .034486  | 110721  | .020236 | 018645  | •020220 |
| 20 | 014313   | .020001  | 100521  | 002461  | 006015  | .002447 |
| 21 | 007872   | .020749  | 100173  | 028379  | 005018  | .001626 |
| 22 | 001342   | .031930  | 105833  | 031244  | 006439  | .012377 |
| 23 | 007155   | .030436  | 112559  | 028674  | 009106  | .025803 |
| 24 | 014286   | .035250  | 123579  | 012195  | 014431  | .041354 |
| 25 | 017023   | .044368  | 128114  | 003603  | 017993  | .047157 |
| 26 | 006782   | .056143  | 131024  | .000508 | 012320  | .050411 |
| 27 | .010839  | .057605  | 136770  | 009186  | 000524  | .052097 |
| 28 | .021289  | .044835  | 130144  | 014011  | .009436 | .045358 |
| 29 | .020855  | .023772  | 107320  | 020758  | .017756 | .027578 |
| 30 | .014601  | .016002  | 079083  | 024920  | .014905 | .002981 |
| 31 | .015315  | 000140   | 052087  | 023738  | .015725 | 006158  |
| 32 | .016781  | 002322   | 037000  | 018819  | .017424 | 003940  |
| 33 | .012760  | 000084   | 028629  | 017738  | .016104 | 000055  |
| 34 | .005340  | .007502  | 020315  | 019324  | .009708 | .003185 |
| 35 | 004581   | .016623  | 013092  | 014623  | 003214  | .006129 |
| 36 | 014128   | .007426  | 004177  | 003370  | 016692  | 005142  |
| 37 | 022803   | 000738   | .002876 | .001364 | 025179  | 004625  |
| 38 | 022462   | .001315  | .004392 | .005188 | 023422  | .013664 |
| 39 | 004601   | .001075  | .005035 | .007228 | 008475  | .020005 |
| 40 | .006463  | 001428   | 001860  | .002116 | .003766 | .023346 |
| 41 | .013306  | 001621   | 004558  | 010552  | .011674 | .022964 |
| 42 | .015310  | 005395   | .001563 | 016163  | :013367 | .014814 |
| 43 | • 005046 | 016625   | .007944 | 005088  | .007187 | .000054 |
| 44 | 012560   | 023590   | .015626 | .014918 | 002521  | 015463  |
| 45 | 020309   | 013625   | .021993 | .027110 | 000509  | 014065  |
| 46 | 021817   | .007532  | .028055 | .023612 | .001530 | 008535  |
| 47 | 023901   | .021287  | .028449 | .015987 | 003993  | 003021  |
| 48 | 029526   | .031732  | .026853 | .020057 | 014020  | .010728 |
| 49 | 028209   | .032919  | .025516 | -031850 | 024768  | .008101 |
| 50 | 023748   | .015130  | .030004 | .035122 | 025830  | 011146  |
| 51 | 024042   | 010830   | .038977 | .026781 | 028634  | 035093  |
| 52 | 017420   | 022004   | .040403 | .003260 | 031495  | 042466  |
| 53 | 006623   | ~.013976 | .034250 | 014432  | 027369  | 042130  |
| 54 | .006599  | .008334  | .031515 | 018913  | 017965  | 022599  |
| 55 | .009493  | -013928  | .038301 | 003138  | 008032  | 003123  |
| 56 | .006917  | .001533  | .044877 | .008689 | 001737  | .006797 |
| 57 | .002628  | 014120   | .051591 | .002207 | .000299 | .006493 |
| 58 | 005380   | 016962   | .048303 | .005693 | 004801  | .010226 |
| 59 | 012077   | 013920   | .033587 | .020745 | 006533  | .015631 |
| 60 | 005214   | 013113   | .020145 | .032093 | .002714 | .014945 |

RUN NO. 82A 16M 11-02-62 0356-0511 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| HOMMETEED | 4040WHIOKE                              | COTANIANCE                              |   |                    |         |                  |
|-----------|---|---|---|--------------------|---------|------------------|
| H         | U.V                                     | U.W                                     | U.T                                     | V.W                | V.T     | W.T              |
|           | 0.75300                                 | 0.47984                                 | 0.31983                                 | 0.34342            | 0.22890 | 0.14586          |
|           | 10E-01                                  | 10E-01                                  | 10E-01                                  | 10E-01             | 10E-01  | 10E-01           |
| 1         | 009755                                  | 011952                                  | .044523                                 | 010876             | .016129 | 045958           |
| 2         | 013826                                  | 009957                                  | .062659                                 | 022323             | .034457 | 050884           |
| 3         | 015495                                  | 014449                                  | .067583                                 | 022123             | .028282 | 040258           |
| 4         | 012394                                  | 016690                                  | .072402                                 | 011655             | .014409 | 037859           |
| 5         | 012126                                  | 004013                                  | .074757                                 | 004817             | .013275 | 041782           |
| 6         | 023569                                  | .008918                                 | .077163                                 | 005670             | .027314 | 051277           |
| ĭ         | 031211                                  | .021844                                 | .074823                                 | 003557             | .044458 | 051242           |
| à         | 032379                                  | .019569                                 | .068388                                 | .004120            | .062268 | 047365           |
| 9         | 026197                                  | .013529                                 |   |                    | .076680 |                  |
| 10        | 023535                                  | .011084                                 | .064620<br>.058656                      | .013698<br>.018269 | .070585 | 045135<br>043751 |
|           |   | 14.00                                   | 21223                                   |                    |         |                  |
| 11        | 024979                                  | .005488                                 | .049986                                 | .009395            | .063945 | 035045           |
| 12        | 032496                                  | .004191                                 | .038730                                 | 008963             | .064509 | 023462           |
| 13        | 046207                                  | 005704                                  | .031383                                 | 011970             | .057913 | 022300           |
| 14        | 042674                                  | 007299                                  | .C27898                                 | .006231            | .037401 | 018561           |
| 15        | 037962                                  | 012260                                  | .027577                                 | .011218            | .017341 | 011221           |
| 16        | 029378                                  | 018602                                  | .030155                                 | .004586            | .014521 | 003320           |
| 17        | 015807                                  | 019645                                  | .024417                                 | 007509             | .013712 | .009025          |
| 18        | 005935                                  | 012174                                  | .019542                                 | 007497             | .012728 | .009744          |
| 19        | 003029                                  | .000968                                 | .015665                                 | 006731             | .009384 | .007588          |
| 20        | 005519                                  | .007888                                 | .010463                                 | - 008410           | .006325 | .006390          |
|           | *************************************** | *************************************** | *************************************** |                    | 1000323 | *000370          |
| 21        | 004053                                  | -011117                                 | .007037                                 | .000780            | 004891  | .005103          |
| 22        | 001418                                  | .012336                                 | .009568                                 | .009176            | 014006  | .003061          |
| 23        | .006982                                 | .001272                                 | .012063                                 | .006851            | 020973  | .004559          |
| 24        | .012210                                 | 008320                                  | .014679                                 | 003294             | 024392  | .010585          |
| 25        | .008239                                 | 013208                                  | .014461                                 | 008900             | 027066  | .019839          |
| 26        | .019598                                 | 013308                                  | .009511                                 | 002232             | 027625  | .025181          |
| 27        | .022001                                 | 016747                                  | .000755                                 | .004331            | 036052  | .031553          |
| 28        | .016509                                 | 014855                                  | 008245                                  | .010181            | 031721  | .034297          |
| 29        | .015104                                 | 013216                                  | 020887                                  | .006325            | 013544  | .034237          |
| 30        | .008252                                 | 013509                                  | 031244                                  | 003927             | 002578  | .033987          |
|           |   |   | 224222                                  | 010740             | 000170  | 022072           |
| 31        | .009238                                 | 008982                                  | 034223                                  | 010742             | .000170 | .033073          |
| 32        | .015819                                 | 006989                                  | 035187                                  | 018219             | .004951 | .027110          |
| 33        | .023803                                 | 006738                                  | 031749                                  | 015904             | .006017 | .016504          |
| 34        | .021323                                 | 000364                                  | 027459                                  | 006795             | .009693 | .000775          |
| 35        | .009163                                 | .008732                                 | 024838                                  | .002394            | .009755 | .001208          |
| 36        | .013623                                 | .005056                                 | 018538                                  | .008008            | .003067 | .005589          |
| 37        | .011634                                 | 002637                                  | 011258                                  | 000785             | 007144  | .003776          |
| 38        | .009943                                 | .006014                                 | 004887                                  | 021305             | 023960  | 008169           |
| 39        | .005037                                 | .009669                                 | 004689                                  | 023962             | 031637  | 008467           |
| 40        | .004145                                 | .008989                                 | 011442                                  | 003047             | 032970  | 002753           |
| 41        | 008814                                  | .024489                                 | 023670                                  | 001743             | 015542  | 014459           |
| 42        | 018519                                  | .026464                                 | 026336                                  | 014473             | .011342 | 022850           |
| 43        | 018292                                  | .016997                                 | 017019                                  | 007527             | .026550 | 020390           |
| 44        | 012141                                  | .015053                                 | 011906                                  | 006235             | .026786 | 018469           |
| 45        | 001911                                  | .021858                                 | 015802                                  | .004166            | .013588 | 021884           |
|           | 1                                       |   |   |                    |         |                  |
| 46        | .011935                                 | .033122                                 | 030981                                  | .022473            | 009492  | 016826           |
| 47        | .020579                                 | .030219                                 | 043136                                  | .035244            | 034017  | 012342           |
| 48        | .016682                                 | .018728                                 | 040387                                  | .022570            | 034775  | 007091           |
| 49        | .018986                                 | .002986                                 | 033973                                  | .002880            | 023797  | 005714           |
| 50        | .021370                                 | 003609                                  | 032245                                  | 008601             | 016618  | 000915           |
| 51        | .017569                                 | 010929                                  | 020697                                  | .000131            | 013638  | .008637          |
| 52        | .014038                                 | 019374                                  | 008576                                  | .008745            | 013293  | .017575          |
| 53        | .012580                                 | 022428                                  | .000375                                 | .011288            | 009117  | .013095          |
| 54        | .012624                                 | 017854                                  | .004718                                 | .004449            | 003411  | 002324           |
| 55        | .009958                                 | 010947                                  | .017067                                 | .001932            | .002475 | 008226           |
| 56        | 008847                                  | .000112                                 | .027522                                 | 002975             | .015587 | 014045           |
| 57        | ~.019381                                | .012581                                 | .032606                                 | 009952             | .026923 | 016483           |
| 58        | 021921                                  | .014710                                 | .035623                                 | 016227             | .029666 | 006887           |
|           |   | .005204                                 | .040528                                 | 012566             | .029701 | 002301           |
| 59        | 018321                                  |   |   |                    |         |                  |
| 60        | 014135                                  | 002921                                  | .035510                                 | 001789             | .024472 | 008954           |

RUN NO. B2A 16M 11-02-62 0356-0511 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| H        | U                                       | v                    | W                  | T                    |
|----------|---|----------------------|--------------------|----------------------|
|          | 0.10521                                 | 0.53000              |                    | •                    |
|          | 10E 00                                  | 0.53892<br>10E-01    | 0.21884<br>10E-01  | 0.97224<br>10E-02    |
| o        | 1 000000                                |                      |                    | 106-02               |
| ĭ        | 1.000000<br>.777662                     | 1.000000             | 1.000000           | 1.000000             |
| 2        | •527470                                 | .668171<br>.311945   | -537157            | .810164              |
| 3        | -344060                                 | •122551              | .170476            | .569488              |
| <b>.</b> | -211013                                 | -040737              | .034895<br>021580  | • 402844<br>• 283476 |
| 5        | •113462                                 | 002924               | - 052224           |                      |
| 6        | .035233                                 | 034303               | 052236<br>060766   | .194234              |
| 7        | 026376                                  | 050706               | 056149             | •122247<br>•063203   |
| 8        | 073777                                  | 075526               | 062157             | •009231              |
| ,        | 105729                                  | 115730               | 061453             | 038863               |
| 10       | 117633                                  | 121165               | 054288             | 072150               |
| 11<br>12 | 121097                                  | 123916               | 047192             | 088554               |
| 13       | 117119                                  | 116253               | 036192             | 106304               |
| 14       | 117763<br>128445                        | 103181               | 038316             | 125906               |
|          | 120445                                  | 087044               | 067094             | 142346               |
| 15<br>16 | 136616                                  | 084595               | 078003             | 161260               |
| 17       | 154661                                  | 106496               | 075089             | 186011               |
| 18       | 157009<br>148200                        | 130299               | 096776             | 201295               |
| 19       | 143292                                  | 142334<br>131863     | 082659             | 197926               |
| 20       |   | 131003               | 040733             | 179660               |
| 20       | 135802                                  | 117572               | 013753             | 165078               |
| 21<br>22 | 130527                                  | 114458               | 032696             | 165537               |
| 23       | 132019                                  | 100505               | 040366             | 174281               |
| 24       | 133214<br>134690                        | 082780               | 029968             | 192086               |
|          | *134070                                 | 073690               | 046922             | ~.214002             |
| 25<br>26 | 138725                                  | 066774               | 067651             | 226187               |
| 27       | 146408<br>151541                        | 049034               | 087601             | 226885               |
| 28       | 136309                                  | 031838<br>035493     | 115809             | 221346               |
| 29       | 099970                                  | 047827               | 098898<br>062899   | 214012<br>188450     |
| 30       | 058622                                  | - 042121             | *****              |                      |
| 31       | 016088                                  | 042121<br>009111     | 017653             | 144087               |
| 32       | .010808                                 | .037849              | 000977<br>.020819  | 097037               |
| 33       | -025846                                 | .076409              | .013438            | 064114<br>047592     |
| 34       | -027906                                 | .078336              | 000249             | 043524               |
| 35       | .018189                                 | .069489              | 010003             |                      |
| 36       | .015409                                 | .052140              | .010803<br>.046052 | 034625               |
| 37       | .017643                                 | .029019              | • 055584           | 013224<br>.003625    |
| 38<br>39 | -015370                                 | .021604              | .042092            | .012647              |
| 3,       | .013953                                 | .030989              | .029307            | .017258              |
| 40       | •009505                                 | .053471              | .009377            | .024941              |
| 41<br>42 | -006439                                 | .059673              | 013011             | .031660              |
| 43       | 005533<br>010864                        | -054625              | 019562             | .037843              |
| 44       | 008148                                  | .031851              | -£001322           | .039517              |
|          |   | .005320              | .026093            | -042208              |
| 45       | 005111                                  | 012950               | -038418            | .043935              |
| 46       | 006128                                  | .010330              | .025148            | • 049946             |
| 48       | 003343<br>005318                        | .042819              | .002559            | .057561              |
| 49       | •000034                                 | •035772              | 032774             | .064973              |
| 20       | *************************************** | •021051              | 040470             | .072930              |
| 50<br>51 | .012809<br>.033687                      | .021543              | 017552             | .076648              |
| 52       | .031759                                 | •012317              | .012664            | -084032              |
| 53       | .009891                                 | •010152<br>-017845   | .020213            | .082184              |
| 54       | 006706                                  | •017865<br>•002482   | •016621<br>•001928 | .075623              |
| 55       | 003852                                  |                      |                    | •076427              |
| 56       | .008544                                 | -•018095<br>-•033957 | 018404             | .074462              |
| 57       | .024374                                 | 038130               | 003920             | .064808              |
| 58       | .033089                                 | 035461               | 006235<br>007127   | •057675              |
| 59       | .030236                                 | 040423               | 006024             | • 046952<br>• 026220 |
| 60       | -018164                                 | 050015               |                    |                      |
|          |   | *030013              | • 003265           | .006627              |

RUN NO. BZA 16M 11-02-62 0356-0511 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| COS | PF  | CT | 941 | 4  |
|-----|-----|----|-----|----|
| 603 | ,,, |    | w   | п. |

| K              | U,V               | U,W              | U.T                | V:W                | V.T              | W. T             |
|----------------|-------------------|------------------|--------------------|--------------------|------------------|------------------|
|                | 10E-03            | 10E-02           | 10E-02             | 10E-03             | 10E-03           | 10E-03           |
| 0              | .037897           | 009071           | .011997            | 008799             | .009154          | 024698           |
| ĭ              | . 259500          | 110980           | -183087            | .118947            | .056547          | 281310           |
| 2              | -163527           | 155686           | .266565            | . 222237           | .029735          | 385972           |
| 3              | . 239753          | 191591           | .291579            | .134457            | .030094          | 453418           |
| 4              | .215004           | 166382           | .202948            | .012938            | 005633           | 409583           |
| 5              | 196956<br>430525  | 137480<br>128170 | .142442<br>.128883 | .125440<br>.195869 | 085930<br>098624 | 364828<br>359323 |
| 7-8            | 110686            | 094870           | .090304            | .113896            | .068226          | 318323           |
| 9-11           | . 237605          | 072047           | .054838            | 212991             | .126367          | 246591           |
| 12-15          | . 333452          | 045263           | .029394            | 059039             | .062724          | 150161           |
| 16-20          | .113085           | 034299           | .022406            | 095289             | .032444          | 144703           |
| 21-27<br>28-36 | 014271<br>.007893 | 019647<br>011828 | .010445<br>.005651 | 009920<br>.011188  | .006212          | 070309<br>044575 |
| 37-47          | .004426           | 006018           | .002452            | 001832             | .002966          | 027685           |
| 48-60          | .013979           | 003079           | .000920            | .008864            | .003353          | 014629           |
| QUADRATUR      | E SPECTRUM        |                  |                    |                    |                  |                  |
| K              | U• <b>V</b>       | U,W              | U.F                | V,W                | V, T             | W, T             |
|                | •••               |                  |                    |                    |                  |                  |
|                | 10E-03            | 10E-03           | 10E-03             | 10E-03             | 10E-03           | 10E-03           |
| 1              | 422093            | 083321           | .438268            | 052956             | .207369          | 027449           |
| 2              | 804225            | 073959           | .702299            | .006663            | .340651          | 122358           |
| 3              | 985803            | .120773          | .715982            | .020816            | • 447956         | 257273           |
| <u>*</u>       | 543256            | .122887          | .483084            | 042190             | .363700          | 220745           |
| 5              | .021790           | 017679           | .361848            | 025687             | .135556          | 103666           |
| à              | .123632           | .071231          | .365324            | 027767             | 054875           | 094816           |
| 7-8            | .096788           | 014418           | .223376            | 107868             | 065832           | 063310           |
| 9-11           | 093796            | 245212           | .109501            | 089814             | 066398           | 014669           |
| 12-15          | .031918           | 047241           | .043346            | 055998             | .082550          | 028832           |
| 16-20          | 102533            | .006472          | .051724            | 007198             | .051196          | 036884           |
| 21-27          | 016105            | .018949          | .036395            | 015649             | .004271          | 030181           |
| 28-36          | .014028           | 026975           | .013711            | .014013            | 009287           | 010466           |
| 37-47          | 012117            | 024334           | .009882            | .002959            | 005709           | 007023           |
| 48-60          | 004072            | .000337          | 001595             | 001001             | 004349           | .001122          |
| POWER SPE      | CTRUM             |                  |                    |                    |                  |                  |
| K              | 1                 | U                | ٧                  |                    | W                | T                |
|                |                   |                  |                    |                    |                  |                  |
|                | 10£               | -01              | 10E-02             | 10E                | -02              | 10E-02           |
| 0              | .00               | 5542             | .008084            | .00                | 4233             | .004882          |
| 1 2 3          |                   | 9910             | .132062            |                    | 6930             | .085429          |
| 2              |                   | 2567             | .290569            |                    | 2034             | -130258          |
| 3              |                   | 7278             | .468331            |                    | 3108             | .141209          |
| 4              | .10               | 3757             | .422098            | . 10               | 4107             | .092878          |
| 5              |                   | 5743             | -311004            |                    | 8812             | .065917          |
| 6              |                   | 2412             | -290479            |                    | 3891             | .063444          |
| 7-8            |                   | 2396             | .280530            |                    | 2821             | .047206          |
| 9-11<br>12-15  |                   | 9861<br>1203     | .223291<br>.156309 |                    | 1598<br>7246     | .031242          |
| 16-15          | •02               | 1203             | •170309            | . 00               | 1270             | • 010279         |
| 16-20          | .01               | 6611             | .138962            | .06                | 1802             | .015025          |
| 21-27          |                   | 9902             | .089915            |                    | 3283             | .008433          |
| 28-36          |                   | 6361             | .058359            |                    | 4691             | .005395          |
| 37-47          |                   | 4339             | .031118            |                    | 4109<br>5703     | .003096          |
| 48-60          | .00               | 2994             | .021591            | • 01               | 5703             | .001778          |

RUN ND. 82A 16M 11-02-62 0356-0511 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

| М        | U,V                                     | U.M      | U.T                                     | V, W              | V,T               | W. T              |
|----------|---|----------|---|-------------------|-------------------|-------------------|
|          | 0.34438                                 | 0.18852  | 0.20000                                 |                   |                   |                   |
|          | 10E-01                                  | 10E-01   | 0,20000<br>10E-01                       | 0.10174<br>10E-01 | 0.10794<br>10E-01 | 0.59088<br>10E-02 |
| 0        | 009297                                  | 453335   | 4 75740                                 |                   |                   |                   |
| 1        | 000464                                  | 030751   | 675749                                  | -017749           | .010326           | 390323            |
| 2        | 054541                                  | .063537  | -181190                                 | .003353           | .042187           | 027071            |
| 3        | 019698                                  |          | 000297                                  | 031756            | .008179           | .007204           |
| 4        | 036802                                  | • 037375 | 047506                                  | 047720            | .016973           | -011647           |
|          | -*030802                                | -105414  | 063019                                  | .004138           | .022564           | .095501           |
| 5        | 061273                                  | .057098  | 025661                                  | .006219           | .004571           |                   |
| 6        | 021479                                  | -002110  | .006751                                 | .068235           |                   | .017147           |
| 7        | 010220                                  | - 029618 | 025634                                  | 033265            | .035487           | .032422           |
| 8        | .047121                                 | 065591   | 026937                                  |                   | .037153           | .016420           |
| 9        | 038437                                  | 037718   | .034534                                 | 059840            | .028891           | 030415            |
|          |   |          | *******                                 | 032751            | -015767           | 104210            |
| 10       | 045267                                  | .047052  | 120216                                  | .002876           | .043315           | 035004            |
| 11       | •002430                                 | .075532  | 152269                                  | .014514           |                   | 035984            |
| 12       | 015440                                  | .071725  | 080242                                  | 062458            | 027216            | .136986           |
| 13       | 048528                                  | . 039951 | 064149                                  | .047955           | •030020           | .056417           |
| 14       | 082574                                  | .002024  | .006019                                 |                   | 035504            | •030020           |
|          |   |          | *000019                                 | .010814           | 067532            | 015929            |
| 15       | 016016                                  | 032561   | .032963                                 | 038787            | 041734            | 017000            |
| 16       | 004200                                  | 023774   | .052756                                 | .017030           |                   | .017053           |
| 17       | • 014962                                | 073811   | -109161                                 | .097223           | -048890           | 012153            |
| 18       | 023301                                  | .033868  | 010373                                  |                   | 006026            | 105217            |
| 19       | • 022607                                | . 058428 | .030074                                 | -016170           | 053755            | .007783           |
| 20       |   |          | .030014                                 | 063619            | 023789            | -006401           |
| 20       | .010697                                 | -042383  | .009805                                 | .035684           | ~.027082          | 0                 |
| 21       | 011709                                  | .017961  | .041373                                 | .045823           |                   | .067983           |
| 22       | • 052538                                | .009802  | -005646                                 | .030371           | 013159            | .038389           |
| 23       | .051326                                 | 061006   | .033912                                 |                   | 017201            | -044915           |
| 24       | .028249                                 | 000018   | 008776                                  | .040836           | 018852            | .008943           |
|          |   |          | 008776                                  | .007468           | 010147            | 000620            |
| 25       | -116615                                 | 059679   | .024677                                 | 038846            | 005001            |                   |
| 26       | .021182                                 | .011360  | 047116                                  | .007293           | .005901           | 066557            |
| 27       | • 034771                                | . 059547 | 111281                                  | .026198           | 046977            | .004432           |
| 28       | • 057592                                | 037177   | 055701                                  | 019994            | 001009            | .063477           |
| 29       | .045841                                 | 022513   | 001319                                  | 049780            | .023125           | .041344           |
| 30       |   |          | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | -1047760          | • 004049          | .026169           |
| 30       | 000935                                  | 006088   | .015181                                 | 007443            | 081781            | 032016            |
| COSPECTA | :UM                                     |          |   |                   |                   |                   |
| K        | U <b>, V</b>                            | U, W     | •                                       |                   |                   |                   |
|          | • | O, H     | U, T                                    | V,W               | V.T               | W.T               |
|          | 10E-03                                  | 105.00   |   |                   |                   |                   |
|          | 106-03                                  | 10E-03   | 10E-02                                  | 10E-03            | 10E-03            | 10E-03            |
| 0        | 326201                                  | .049130  | .012772                                 | - 017465          |                   |                   |
| 1        | 848259                                  | 003049   | .055639                                 | 017628            | .046411           | .001194           |
| 2        | 036535                                  | 185622   |   | 104809            | · 225808          | 052210            |
| 3        | . 052941                                | 276761   | .069352                                 | 033692            | .109198           | 076543            |
| 4        | 188412                                  |          | .104754                                 | •042889           | 020067            | 098376            |
|          | *************************************** | 285865   | .080384                                 | .018743           | 068975            | 091209            |
| 5        | 034998                                  | 248070   | .040370                                 | - 024903          | 0055              |                   |
| 6        | - 206680                                | 353892   | .050982                                 | 034892            | 033069            | 052961            |
| 7        | . 344952                                | 747009   | -094230                                 | 056247            | .030984           | 102557            |
| 8        | .206723                                 | 811630   |   | 037636            | •070920           | 226137            |
| 9-11     | .068463                                 | 322189   | -108351                                 | .008108           | .030720           | 202428            |
|          |   | - 324107 | .062960                                 | -110482           | .014498           | 049943            |
| 12-14    | 150349                                  | 386120   | .063703                                 | 043701            |                   |                   |
| 15-21    | -154978                                 | 412274   | .046825                                 | •063781           | 025429            | 121926            |
| 22-30    | 129988                                  | 399135   | .043472                                 | 011400            | .008515           | 085646            |
|          |   |          | •UT3412                                 | 012017            | 045402            | 124976            |

RUN NO. 82A 16M 11-02-62 0356-0511 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

| M        | U.V               | U, W                                    | U, T                                    | V, W                                    | V, T                                    | WeT                                     |
|----------|-------------------|---|---|---|---|---|
|          | 0.34438           | 0.18852                                 | 0.20000                                 | 0.10174                                 | 0.10794                                 | 0.59088                                 |
|          | 10E-01            | 10E-01                                  | 10E-01                                  | 10E-01                                  | 10E-01                                  | 10E-02                                  |
|          |                   |   |   | • • • •                                 |   | • |
| ι        | 065084            | .017140                                 | .088763                                 | .006558                                 | .079897                                 | 094870                                  |
| 2        | .000147           | 014274                                  | .033586                                 | .010946                                 | .024944                                 | .039162                                 |
| 3        | .039516           | 036003                                  | .034304                                 | 008692                                  | 014974                                  | .041131                                 |
| 4        | 001341            | .033749                                 | 021661                                  | 000944                                  | 000591                                  | 004737                                  |
| 5        | .075954           | .005424                                 | 020555                                  | .061105                                 | 067888                                  | .003326                                 |
| -        | 055077            | 000433                                  | 010143                                  | 027502                                  | 044454                                  | 000000                                  |
| 6<br>7   | • 055077          | .009431                                 | .018163                                 | .037583                                 | 046456                                  | 000028                                  |
| á        | .048430           | 029732<br>032439                        | 001329<br>.003060                       | .048425<br>.028947                      | 071208<br>049279                        | .010118                                 |
| 9        | 047876<br>.027892 | .049967                                 | •019042                                 | 030421                                  | 033650                                  | .029130<br>.001073                      |
| 10       | .089497           | 011030                                  | 019548                                  | .038064                                 | 113835                                  | .025105                                 |
| 10       | .007471           | 011030                                  | -8027540                                | •030004                                 |   | .023.03                                 |
| 11       | .039794           | .009041                                 | 047809                                  | 013396                                  | 033868                                  | .027685                                 |
| 12       | 039699            | .020513                                 | .007681                                 | 051949                                  | 045656                                  | 009070                                  |
| 13       | .068976           | .043206                                 | 011449                                  | .010714                                 | 073651                                  | 015047                                  |
| 14       | .119148           | .000828                                 | 019799                                  | 008554                                  | 154880                                  | .007408                                 |
| 15       | .065247           | 014846                                  | 001566                                  | 041453                                  | 039910                                  | 008721                                  |
| 14       | .055020           | .055070                                 | .008601                                 | 036995                                  | - 063830                                | 032936                                  |
| 16<br>17 | .045678           | 064849                                  | .037595                                 | .064200                                 | 063830<br>054665                        | .049928                                 |
| 18       | .005379           | 021251                                  | .031230                                 | 101677                                  | 051791                                  | 000576                                  |
| 19       | 004870            | 001954                                  | .019984                                 | 071417                                  | 038352                                  | .022179                                 |
| 20       | ~. 062569         | 001165                                  | .021686                                 | 105210                                  | .061794                                 | .021663                                 |
| 20       | .002,07           | *************************************** | *************************************** | *************************************** | *************************************** | ********                                |
| 21       | 029044            | .037598                                 | 010403                                  | 020387                                  | 032502                                  | .017511                                 |
| 22       | .020322           | 011511                                  | .007032                                 | .001356                                 | 021627                                  | .039849                                 |
| 23       | 018564            | .021195                                 | .037825                                 | 015714                                  | .013386                                 | 004703                                  |
| 24       | 021335            | 003325                                  | .039580                                 | .009612                                 | .028257                                 | .011159                                 |
| 25       | 002589            | .021026                                 | .009915                                 | 058396                                  | .062326                                 | 032851                                  |
| 26       | .027474           | .026245                                 | .013033                                 | .041135                                 | .033576                                 | .011961                                 |
| 27       | .001395           | 033027                                  | .031283                                 | .000640                                 | .036573                                 | 004368                                  |
| 28       | .008705           | 009369                                  | .025204                                 | .035841                                 | .008612                                 | 020238                                  |
| 29       | .001881           | .035257                                 | .059527                                 | 039294                                  | .055931                                 | 124728                                  |
| 30       | .027730           | .033626                                 | .015878                                 | .013819                                 | .042836                                 | 072228                                  |
| QUADRATU | RE SPECTRUM       |   |   |   |   |   |
|          |                   |   |   |   |   | ,. <del>-</del>                         |
| K        | U,V               | U, W                                    | U, T                                    | ۸, א                                    | V, T                                    | W,T                                     |
|          |                   |   |   |   |   |   |
|          | 10E-02            | 10E-03                                  | 10E-03                                  | 10E-03                                  | 10E-03                                  | 10E-04                                  |
| ı        | .138329           | .066593                                 | .040835                                 | 036233                                  | 566469                                  | .493602                                 |
| 2        | .073695           | .019760                                 | 027047                                  | .124348                                 | 237207                                  | .212990                                 |
| 3        | .006730           | 037248                                  | .088656                                 | .131677                                 | .049376                                 | .204251                                 |
| 4        | 005571            | 082871                                  | .181345                                 | .025501                                 | .078278                                 | .090400                                 |
| 5        | .011939           | .001105                                 | .111170                                 | .006270                                 | .034827                                 | 219907                                  |
| 6        | 021217            | .088537                                 | .041906                                 | 049913                                  | .085015                                 | 084684                                  |
| 7        | 046163            | .003101                                 | .118613                                 | 100964                                  | .140315                                 | .166298                                 |
| 8        | 017582            | 078533                                  | .222034                                 | 029640                                  | .114157                                 | .095841                                 |
| 9-11     | 019156            | 074578                                  | .226838                                 | .003934                                 | .071197                                 | 202840                                  |
| 12-14    | 000775            | .037907                                 | .097119                                 | .051918                                 | .031045                                 | 473990                                  |
| 15-21    | 022744            | 107740                                  | 049497                                  | - 004553                                | 070054                                  | - 740034                                |
| 15-21    | 032766            | .107760<br>046449                       | .068697                                 | 004553                                  | .078854                                 | 740034<br>227974                        |
| 22-30    | .006767           | 470777                                  | .101400                                 | .001485                                 | .005832                                 | - • 6 6 7 1 9                           |

RUN NC. 82A 16M 11-02-62 0356-0511 EST 301 PCINT RUNNING MEAN, 10 PDINT BLOCK AVERAGE

| м            | U        | v        | w                 | T                  |
|--------------|----------|----------|-------------------|--------------------|
|              | 0.63809  | 0.18586  |                   |                    |
|              | 10E-01   | 10E-01   | 0.55695<br>10E-02 | 0.62689<br>10E-02  |
| 0            | 1.000000 | 1.000000 | 1.000000          | 1.000000           |
| 1            | -218991  | .084868  | .021151           | . 263237           |
| 2            | .079412  | .049803  | 106990            | .001246            |
| 3            | .028148  | .152868  | 027436            | 068790             |
| 4            | 056246   | .146170  | 069113            | 025622             |
| 5            | .022308  | .093254  | 030408            | 006057             |
| 6            | .025460  | .027787  | 064644            | .006872            |
| 7<br>8       | .014593  | .110208  | 018601            | 001003             |
| 9            | .043840  | .044405  | .005770           | 084580             |
| ,            | .057165  | 021968   | .011953           | 030421             |
| 10           | 077163   | 039882   | 092409            | 112402             |
| 11           | 108028   | .095233  | 081435            | 161015             |
| 12           | 050174   | 025977   | 120936            | 094554             |
| 13           | 062032   | 179513   | 025137            | 112554             |
| 14           | .047679  | 087593   | 030068            | 013290             |
| 15           | .038594  | 027609   | .018790           | .023087            |
| 16           | .031004  | 082665   | .062522           | .064861            |
| 17           | .073494  | 127634   | .174109           | 119019             |
| 18           | 056769   | 044927   | 027019            | 015502             |
| 19           | 054264   | 114544   | 044928            | -011400            |
| 20           | 040682   | 106233   | 039644            | 049347             |
| 21           | .004343  | 020372   | 024689            | .011258            |
| 22           | 012410   | .008333  | 006288            | .007203            |
| 23<br>24     | .020237  | 041809   | .011357           | 013070             |
| 24           | 012204   | 106995   | 008707            | 075254             |
| 25           | 022746   | 007428   | .011572           | 032082             |
| 26           | 044574   | .010149  | .026504           | 059559             |
| 27           | 152210   | 098397   | 024452            | 105253             |
| 28<br>29     | 102348   | 029546   | .010958           | 037820             |
| 24           | 014?32   | 144634   | 038700            | 070615             |
| 30           | 026658   | 049847   | 062810            | 047190             |
| POWER SPECTI | RUM      |          |                   |                    |
| K            | U        | V        | W                 | r                  |
|              | 10E-02   | 10E-02   | 10E-03            | 10E-03             |
| 0            | -157316  | •050489  | .012199           | 042204             |
| 1            | .565799  | .278832  | .101870           | •063206<br>•341093 |
| 2            | .363020  | .145553  | . 152868          | • 357276           |
| 3            | .360097  | .076637  | . 235807          |                    |
| 4            | -316220  | .037007  | .223887           | •461207<br>•371149 |
| 5            | .235586  | .043021  | -136923           | 103000             |
| 5            | .235176  | .049058  | • 164942          | .192990            |
| 7            | .364099  | .046989  | • 308142          | •214039            |
| 8            | .425614  | .044117  | .310629           | • 366896           |
| 9-11         | .239/06  | .056675  | 204640            | •411049<br>•320578 |
| 12-14        | .237292  | •055639  | - 260433          | 20/350             |
| 15-21        | .221630  | .095290  | .275228           | •284752<br>•219008 |
| 22-30        | .274596  | .099127  | .302780           |                    |
|              |          |          | 1302190           | •211693            |

RUN NO. 82A 40" 11-02-62 0356-0511 EST

### GROSS STATISTICS

| CLEAR<br>Stable<br>Land | WIND SIGMA (            | A 5.7 DEG                      | WIND DIRE<br>SOLAR RAC<br>NET RADIA |                                    |
|-------------------------|-------------------------|--------------------------------|-------------------------------------|------------------------------------|
|                         | WITH NO<br>RUNNING MEAN | WITH 301 POINT<br>RUNNING MEAN | WITH 61 POINT<br>RUNNING MEAN       | 301 PT RUN MEAN<br>10 PT BLOCK AVG |
| VARIANCES               |                         |                                |                                     |                                    |
| ı                       | 0.34823E-00             | 0.41494E-01                    | 0.29841E-01                         | 0.21640E-01                        |
| v                       | 0.427518-00             | 0.18441E-01                    | 0.15349E-01                         | 0.57880E-02                        |
| -k                      | C-12058E-01             | 0.99335E-02                    | 0.93056E-02                         | 0.28051E-02                        |
| Ť                       | 0.91495E-01             | 0.15290E-01                    | 0.11498E-01                         | 0.81502E-02                        |
| Ε                       | 0.39390E-00             | 0.34941E-01                    | 0.27248E-01                         |                                    |
| GUSTINESS RATI          | ios                     |                                |                                     |                                    |
| u                       | 0.09121                 | 0.03148                        | 0.02670                             | 0.02274                            |
| ٧                       | 0.10100                 | 0.02099                        | 0.01915                             | 0.01176                            |
| h                       | 0.01697                 | 0.01540                        | 0.01491                             | 0.00819                            |
| COVARIANCES             |                         |                                |                                     |                                    |
| U • V                   | 0.124946-00             | 0.72594E+04                    | 0.13354E-02                         | -0.85080E-03                       |
| U, w                    | 0.410966-02             | -0.42600E-02                   | -0.46686E-02                        | -0.14528E-03                       |
| U,T                     | 0.12523E-00             | 0.16236E-01                    | 0.11061F-01                         | 0.94840E-02                        |
| V , W                   | -0.19773E-01            | -0.91538E-03                   | -0.84523E-03                        | -0.34171E-03                       |
| V • T                   | -0.22556E-01            | 0.60206E-03                    | U.87741E-03                         | 0.16467E-03                        |
| ₩.T                     | 0.71920E-02             | -0.20411E-02                   | -0.23941E-02                        | 0.21428E-03                        |
| WE                      | -0.25317E-02            | 0.105408-02                    | 0.71156E-03                         |                                    |
| NORMALIZED COV          | ARTANCES                |                                |                                     |                                    |
|                         |                         |                                |                                     |                                    |
| L.V                     | 0.32383                 | 0.00262                        | 0.05245                             | -0.07602                           |
| L, A                    | 0.06340                 | -0.20983                       | -0.28015                            | -0.01865                           |
| U, T                    | J. 7 1155               | 0.54461                        | 0.59713                             | 0.71413                            |
| V , #                   | -0.21511                | -0.06763                       | -0.07072                            | -0.08480                           |
| V , T                   | -0.11405                | 0.03585                        | 0.05605                             | 0.02399                            |
| h, T                    | 3.21653                 | -0.16562                       | -0.23144                            | 0.04482                            |

RUN NC. BZA 40M 11-02-62 0356-0511 EST 61 PGINT RUNNING MEAN, NO BLOCK AVERAGING

|          |   | OH COVAKIA       | · C                |                   |                      |                      |
|----------|---|------------------|--------------------|-------------------|----------------------|----------------------|
| М        | U,V                                     | U,W              | U, T               | Veh               | V,T                  | W. T                 |
|          | 0.21397                                 | 0.16663          | 0.18523            | 0.11055           |                      |                      |
|          | 10E-01                                  | 10E-01           | 10E-01             | 0.11953<br>10E-01 | 0.13265<br>10E-01    | 0.10345<br>10F-01    |
| 9        | .062490                                 | 280003           | .597233            | 070684            | 044003               |                      |
| 1        | . 052544                                | 165492           | .499513            | 035082            | .066093              | 231631               |
| 2        | • 034909                                | 038483           | .337882            | 025144            | •059374              | 127996               |
| 3        | .005542                                 | .023034          | .207116            | 016561            | • 044931<br>• 032714 | 021252               |
| 4        | 016507                                  | .062673          | .115919            | 025114            | .030281              | •029456<br>•050432   |
| 5<br>6   | 020571                                  | .078005          | .053740            | 009545            | -004810              | 041206               |
| 7        | 0093.5                                  | .067087          | .014478            | 009933            | 021005               | .061205              |
| 8        | 003457<br>005462                        | .063392          | 004255             | 021385            | 017418               | .045953<br>.039650   |
| 9        | 002153                                  | .070365          | 020122             | 030471            | 011456               | •041160              |
|          | *002133                                 | •065919          | 041850             | 011865            | 015885               | .027793              |
| 10<br>11 | 0084 13<br>018329                       | -031077          | 049779             | .011695           | 019146               | .001134              |
| 12       | 019136                                  | .017794          | 050334             | .017760           | 013820               | 012235               |
| 13       | 019829                                  | 001748           | 052172             | 00?331            | 004140               | 021407               |
| 14       | 029488                                  | 016530           | 056917             | 025705            | 007695               | 024169               |
|          | - 02 74 36                              | 015004           | 069053             | 015463            | 023042               | 015882               |
| 15<br>16 | 044182                                  | 005208           | 083806             | - 029028          | 040171               | - 004043             |
| 17       | 039876                                  | 003773           | 102939             | .038716           | 037653               | 004867               |
| 18       | 026203                                  | 004945           | 121900             | .035136           | 014475               | .014632<br>.027123   |
| 19       | 006250                                  | 017366           | 129567             | .019809           | 001281               | •018221              |
|          | .007602                                 | 030903           | 126235             | .001594           | 007204               | .001496              |
| 20<br>21 | .011753                                 | 034206           | 111845             | .009543           | 007152               | - 010720             |
| 22       | • 003958                                | 047577           | 101565             | .025461           | 012531               | 019730<br>034953     |
| 2.3      | •001133<br>•008926                      | 049430           | 095686             | . 046645          | 014347               | 026625               |
| 24       | .004904                                 | 027372           | 092646             | .051527           | 023780               | 010804               |
|          | * 0049()4                               | 002728           | 089494             | •041672           | 032599               | .007456              |
| 25<br>26 | 006734                                  | .014580          | 076470             | .024107           | 040767               | 201122               |
| 27       | 010083                                  | .011808          | 056342             | .020625           | 031930               | .006632<br>005557    |
| 28       | 018671<br>020626                        | .015033          | 050833             | - 026097          | 021894               | .001566              |
| 29       | 002238                                  | .028603          | 064366             | .026844           | 015145               | .031406              |
|          | •002238                                 | .032811          | 070044             | .015787           | .006166              | .040386              |
| 30       | .005948                                 | .039320          | 058169             | .004232           | 010212               |                      |
| 31       | •002860                                 | .031106          | 041189             | 003800            | .018213              | .032084              |
| 32       | 006840                                  | .010970          | 025093             | 006761            | •022316<br>•015812   | -023677              |
| 33<br>34 | 000012                                  | 007820           | 007022             | 005483            | .022258              | .009076              |
| 74       | . 022493                                | 019574           | .019248            | 006454            | .020980              | ~•012757<br>-•020626 |
| 35       | .037813                                 | 020413           | .027846            | - 0173/3          |                      |                      |
| 36       | .033237                                 | 016146           | .022613            | 017343<br>023709  | .025937              | 014368               |
| 37       | .010818                                 | 010230           | .316464            | 016040            | • 028894             | 002730               |
| 38       | • 003834                                | .003123          | .018893            | .001150           | -020143              | .007624              |
| 39       | .012735                                 | .014896          | .029431            | 006567            | .011463<br>.011945   | -012195              |
| 40       | . 022136                                | ~ 000041         |                    |                   | .011,43              | .014767              |
| 41       | .027262                                 | 000041           | .043475            | 025462            | .023446              | .002298              |
| 42       | .030054                                 | 027144<br>020988 | -035098            | 016992            | .026630              | 013231               |
| 43       | .023957                                 | 011090           | .018533<br>.003887 | 006325            | .025205              | 015139               |
| 44       | .010140                                 | .002140          | 016289             | 006623            | .020334              | 010804               |
| 45       | 007/07                                  |                  | *010209            | 001575            | .019209              | 005533               |
| 46       | .007697                                 | .004761          | J24488             | .004215           | .016637              | .002803              |
| 47       | •008281<br>•003225                      | 005717           | 017393             | .004397           | .014093              | 004017               |
| 48       | 007248                                  | 021348           | 019529             | .004098           | .012393              | 004017               |
| 49       | 012533                                  | 021357           | 038606             | .006323           | .014215              | 015323               |
|          |   | 014074           | 039666             | .008334           | . 607704             | 022030               |
| 50<br>51 | 005667                                  | 017275           | 025949             | 004274            | 004475               | - 031000             |
| 52       | 003315                                  | 022653           | 007730             | 016754            | 017434               | 031009               |
| 53       | .001367<br>.011800                      | 018417           | .008119            | 018643            | 021677               | 030153<br>025780     |
| 54       | •011800<br>•016048                      | 019044           | -014649            | 031757            | 021198               | 025780               |
|          |   | 011037           | -015137            | 028110            | 008681               | 025115               |
| 55<br>56 | .013839                                 | .001804          | .008994            | 005127            | 00035#               | - 033:               |
| 57       | .013669                                 | .019354          | 000971             | 00000)            | .004802              | 022150<br>018540     |
| 58       | .017904<br>.017355                      | .037389          | 018103             | 017737            | 005257               | •01P540<br>•009736   |
| 59       | .013535                                 | .040649          | 027222             | 028695            | 013073               | .039649              |
|          | *************************************** | .024413          | 016266             | 017781            | 009197               | .043763              |
| 60       | .004217                                 | .012542          | .005444            | 00/325            | - 005:11             |                      |
|          |   |                  |                    |                   | 005915               | -036350              |
|          |   |                  | 5.47               |                   |                      |                      |

RUN NO. 82A 40M 11-02-62 0356-0511 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| M        | U.V                        | U, W               | U, T               | V.W                | V,T                | W, T               |
|----------|----------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|          | 0.21397                    | 0.16663            | 0.18523            | 0.11950            | 0.13285            | 0.10345            |
|          | 10E=01                     | 10E-01             | 106-01             | 10E-01             | 10E-01             | 10E-01             |
| 1        | .018201                    | 029947             | .047935            | 046828             | .023923            | .091433            |
| 2        | .000784                    | 045285             | .050923            | 086702             | .022741            | .152345            |
| 3        | 006404                     | 052258             | •D48436            | 086734             | .009648            | .162847            |
| 5        | .001749<br>.020809         | 058127<br>055842   | .052293<br>.044668 | 061498<br>038116   | 003044<br>009328   | •144978<br>•128165 |
| 6        | .009628                    | 036728             | .032245            | 020180             | .001263            | .114577            |
| 7        | 003336                     | 040711             | .020955            | 006628             | .006307            | .112500            |
| 8        | .005121                    | 050009             | .008182            | .017845            | 010044             | .116607            |
| 9        | .017948                    | 051315             | .011013            | .028541            | 024750             | .111296            |
| 10       | .020038                    | 064433             | -015701            | .024590            | 016973             | .106196            |
| 11       | .021770                    | 073359             | .014784            | .018395            | 011225             | .110130            |
| 12       | .005666                    | 083508             | .017272            | 002781             | 002842             | .109681            |
| 13       | .002419                    | 071780             | .017891            | 003064             | 008021             | .092633            |
| 14       | .008932<br>.014108         | 058839<br>056812   | .014108<br>.012~   | .001740<br>.006091 | 022196<br>040823   | -065497<br>-049247 |
| .,       | .014100                    |                    |                    |                    |                    |                    |
| 16       | 000386                     | 045456             | -014252            | .001356            | 041928             | .032684            |
| 17<br>18 | 014086<br>012416           | 023102<br>009893   | .013619<br>.013746 | 018390<br>022738   | 025986<br>029448   | .023011<br>.019746 |
| 19       | 000363                     | 000749             | .008250            | 015015             | 035632             | .015501            |
| 20       | .007546                    | .007966            | .003065            | 001660             | 035339             | 000435             |
| 21       | .007802                    | .021456            | .004721            | .008447            | 026180             | 019430             |
| 22       | .016684                    | .021507            | .000837            | .004480            | 009241             | 030761             |
| 23       | .025674                    | .025301            | 000822             | .011474            | 001568             | 046863             |
| 24       | .031005                    | .015173            | .010176            | .032437            | 002807             | 061054             |
| 25       | .018821                    | .020801            | .014472            | .047373            | 005715             | 064775             |
| 26       | .021528                    | -019697            | .017437            | .042357            | 001705             | 061788             |
| 27       | .011621                    | .013717            | .020519            | .029825            | .001887            | 057664             |
| 28       | .003725                    | .005362            | .020303            | 003990             | .009121            | 048620             |
| 29<br>30 | .006190<br>.012982         | 000177<br>007918   | .018694<br>.021025 | 009451<br>.003851  | .000640<br>013735  | 039180<br>039211   |
|          | 01//2/                     | 012025             | 010400             | 014734             | 022200             | - 034014           |
| 31<br>32 | .014434<br>.016435         | 013025<br>003345   | .019490<br>.013741 | .014734<br>.017527 | 022288<br>012886   | 036914<br>036451   |
| 33       | .011740                    | .010159            | 000881             | .007568            | .006734            | .030251            |
| 34       | 013281                     | .015880            | 004963             | 004989             | .025457            | 027185             |
| 35       | 026355                     | .014583            | 002167             | 002444             | .022303            | 011960             |
| 36       | 037674                     | .011838            | 003347             | 022234             | .011301            | 007252             |
| 37       | 023676                     | .015038            | 009273             | 020178             | .000882            | 012649             |
| 38       | 004088                     | .018474            | 010834             | . 000405           | •006052            | 014305             |
| 39<br>40 | .010357<br>.008139         | .003301<br>.002401 | 012809<br>016134   | .010879            | .006815<br>.004472 | 008052<br>008731   |
|          |                            |                    |                    |                    |                    |                    |
| 41       | .006733                    | .005510            | 015149             | .041935            | 002997             | 008088             |
| 42       | .000625<br>007 <b>5</b> 13 | .021005<br>.021760 | 015527<br>020626   | .035749<br>.016675 | .005237<br>.017522 | 003836<br>.014790  |
| 44       | .002247                    | .014996            | 020132             | .019388            | .011635            | .039245            |
| 45       | .015458                    | 000949             | 012120             | .024446            | .010693            | .044547            |
| 46       | .006902                    | 019980             | 001436             | 001012             | .020715            | .046272            |
| 47       | 011715                     | 011624             | 005070             | 020402             | .028815            | .044905            |
| 48       | 024832                     | 007827             | 011903             | 029099             | .029180            | .040189            |
| 49       | 032072                     | 003904             | 013020             | 045744             | .033219            | .029848            |
| 50       | 052435                     | .015028            | 017500             | 064352             | .042760            | .012157            |
| 51       | 044651                     | .021247            | 021111             | 055418             | .042391            | .000207            |
| 52       | 045396                     | .018153            | 023286             | 031720             | .029096            | .001019            |
| 53       | 040945<br>020312           | .018035<br>.013181 | 034347<br>040733   | 012522<br>027008   | .009796<br>.002694 | .013837<br>.030519 |
| 54<br>55 | 007270                     | 004232             | 041072             | 024152             | .005534            | .030405            |
| 5.4      | 000574                     | 019297             | 034508             | 007223             | 004085             | .023053            |
| 56<br>57 | .008576<br>.004712         | 019015             | 019489             | 007223             | 000460             | .008607            |
| 58       | .009418                    | 018292             | 007960             | 006792             | 004992             | 012303             |
| 59       | .027457                    | 006658             | 004594             | .012300            | 017107             | 040206             |
| 60       | .022635                    | .010831            | 004333             | .013862            | 019586             | 057011             |

RUN NO. 82A 40M 11-02-62 0356-0511 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| M        | U                                       | ٧                  | W                                       | T                  |
|----------|---|--------------------|---|--------------------|
|          | 0. 29834                                | 0.15346            | 0.03042                                 |                    |
|          | 10E-01                                  | 10E-01             | 0.93062<br>10E-02                       | 0.11500<br>10E-01  |
| 0        | 1.000000                                | 1.000000           | 1.000000                                | 1 000000           |
| 1        | .715035                                 | •563558            |   | 1.000000           |
| 2        | .426111                                 | .206779            | • 534041<br>202201                      | .779963            |
| 3        | -230697                                 | .051762            | - 202301                                | .488308            |
| 4        | -108668                                 | 022252             | .072413<br>.011236                      | .297219<br>.182156 |
| 5        | .036366                                 | 066298             | 004440                                  |                    |
| 6        | 002431                                  | 089050             | 026468                                  | -104108            |
| 7        | 034530                                  | 064675             | 012221                                  | .055488            |
| 8        | 058477                                  | 049226             | 032356                                  | -014992            |
| 9        | 084704                                  | 050314             | 074981<br>091084                        | 024693<br>049633   |
| 10       | 083496                                  | - 044143           | *****                                   |                    |
| 11       | 072211                                  | 066163             | 066132                                  | 064281             |
| 12       | 064394                                  | 073936<br>051223   | 063784                                  | 072307             |
| ذ١       | 067834                                  | 040963             | 070176                                  | 092503             |
| 14       | 081973                                  |                    | 063930                                  | 129531             |
|          | *************************************** | 040316             | 069920                                  | 159994             |
| 15       | 108935                                  | 048545             | 072940                                  | 178241             |
| 16       | 123634                                  | 049231             | 083683                                  | 195103             |
| 17       | 124875                                  | 022481             | 102529                                  |                    |
| 18       | 130861                                  | 025663             | 076601                                  | ~.209190           |
| 19       | 123033                                  | 055316             | 056466                                  | 211459<br>205345   |
| 20       | 117637                                  | 061929             | 000004                                  |                    |
| 21       | 114236                                  | 047756             | 080026                                  | 192904             |
| 22       | 105784                                  |                    | 055669                                  | 183191             |
| 23       | 093529                                  | 076673             | 048569                                  | 181496             |
| 24       | 084120                                  | 119349<br>136986   | 082832                                  | 185570             |
|          | 100/120                                 |                    | 105337                                  | 170988             |
| 25       | 088063                                  | 112306             | 080830                                  | 133669             |
| 26       | 093617                                  | 083146             | 057546                                  | 097084             |
| 27       | 095675                                  | 075105             | 059984                                  | 088158             |
| 28       | 097078                                  | 067661             | 069272                                  | 100851             |
| 29       | 088856                                  | 065058             | 063279                                  | 101085             |
| 30       | 074678                                  | 040870             | 073005                                  |                    |
| 31       | 039169                                  | 010073             | 073005                                  | 091337             |
| 32       | 011227                                  |                    | 051592                                  | 064151             |
| 33       | .000665                                 | .019404<br>.041842 | 013301                                  | 030197             |
| 34       | -011477                                 | .040383            | • 043985<br>• 079296                    | •003431<br>•029724 |
| 35       | 022025                                  |                    | *************************************** | • 027124           |
| 36       | -022835                                 | -011857            | • 07495 •                               | .049328            |
| 37       | -015734                                 | 007888             | - 070512                                | .056450            |
| 38       | 008165                                  | 015311             | .068677                                 | .060155            |
| 39       | 026086                                  | 023110             | - 046578                                | .073077            |
| 31       | 029725                                  | 020925             | 003369                                  | .084848            |
| 40       | 007980                                  | 013101             | .014385                                 | 007040             |
| 41       | .004052                                 | .004474            | . 049948                                | .097042            |
| 42       | 005384                                  | .037581            | . 050968                                | -104700            |
| 43       | 020451                                  | .080113            | .047355                                 | -098232            |
| 44       | 028311                                  | .080032            | .044233                                 | •088376<br>•061262 |
| 45       | 028861                                  | .065237            | 005707                                  |                    |
| 46       | 024997                                  |                    | .005505                                 | .026758            |
| 47       | 019609                                  | -054081            | 017978                                  | .016267            |
| 48       | 017990                                  | •050953            | 012870                                  | .008221            |
| 49       | 017799                                  | •052651<br>034385  | • 001201                                | 011625             |
|          | 1011177                                 | .036385            | -001409                                 | 029436             |
| 50<br>51 | 015500                                  | .000677            | .014715                                 | 023672             |
|          | •004575                                 | 007003             | .014289                                 | 011616             |
| 52       | .012972                                 | 022152             | 003087                                  | 002387             |
| 53       | .019976                                 | 012395             | 007663                                  | .002785            |
| 54       | .017882                                 | 007083             | 030690                                  | 000656             |
| 55       | .012166                                 | 028233             | 022047                                  | 021412             |
| 56       | .002725                                 | 035475             | 020292                                  | 021412             |
| 57       | 000109                                  | 024364             | 046408                                  | 047308             |
| 58       | .008131                                 | .011068            | 076116                                  | 067397             |
| 59       | .021300                                 | -002802            | 066854                                  | 072506             |
| 60       | 045070                                  |                    | - 555554                                | 061351             |
| 00       | .045070                                 | 011862             | 043068                                  | 041006             |

RUN NO. 82A 40M 11-02-62 0356-0511 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| CO |  |  |
|----|--|--|
|    |  |  |

| K           | U,V          | U,W     | U.T     | V.W     | V.T      | W,T      |
|-------------|--------------|---------|---------|---------|----------|----------|
|             | 10E-03       | 10E-03  | 10E-02  | 10E-03  | 10E-03   | 10E-03   |
| 0           | 018369       | 005800  | .006477 | .003172 | 005163   | 002515   |
| ĭ           | 097358       | .012692 | .079624 | 049384  | 021821   | 013952   |
| ž           | .024413      | .007156 | .116077 | 126046  | .073478  | 029160   |
| 3           | .168840      | .002969 | .145365 | 160115  | .181838  | 022597   |
| 4           | -160445      | 048200  | 113346  | 064461  | .126143  | 023809   |
| 5           | .135423      | 232927  | .074519 | .025471 | .057354  | 077129   |
| 6           | .154867      | 394323  | .068642 | .005143 | .085358  | 121211   |
| 7-8         | .024816      | 325571  | .058939 | 025792  | -092326  | 117696   |
| 9-11        | .082633      | 309316  | .052959 | 011333  | .035730  | 180904   |
| 12-15       | .089777      | 159470  | .026357 | 009592  | .012553  | 080975   |
| 16-20       | .051282      | 160226  | .018016 | 045238  | 000445   | 085116   |
| 21-27       | 011670       | 090255  | .008063 | .010278 | 001475   | 052402   |
| 28-36       | 010343       | 060047  | .005119 | 021288  | .015756  | 035039   |
| 37-47       | .003884      | 041366  | .001723 | 004933  | 009626   | 021234   |
| 48-60       | - 004459     | 017369  | .000900 | 013778  | .002615  | 012600   |
| QUADRATUR   | E SPECTRUM   |         |         |         |          |          |
| K           | U <b>, Y</b> | U,W     | U, T    | V,W     | V, T     | W, T     |
|             |              |         |         |         |          |          |
|             | 10E-03       | 10E-03  | 10E-03  | 10E-03  | 10E-03   | 10E-03   |
| 1           | .147429      | 234002  | .202513 | .046123 | 128482   | .161388  |
| 2           | .109525      | 321274  | .181964 | 013317  | 127891   | .314193  |
| 3           | .013464      | 383253  | .107465 | 069578  | 047831   | .506331  |
| 4           | 003027       | 296053  | .107575 | 065372  | .029707  | .413690  |
| 5           | .053982      | 143341  | .154446 | 056950  | .064640  | .219739  |
| 6           | .092619      | .013018 | .120539 | 041614  | . 056463 | .126773  |
| 7-8         | 044572       | .042801 | .083752 | 153082  | .007151  | .114795  |
| 9-11        | 014029       | 087579  | -117706 | 122441  | .019443  | .099783  |
| 12-15       | .008387      | 053312  | .056916 | 070143  | .024607  | .098530  |
| 16-20       | .008753      | 004473  | .013758 | 011084  | .007086  | .036173  |
| 21-27       | .019341      | 002079  | .025347 | 017242  | .030878  | .013327  |
| 28-36       | . 035496     | 012510  | .023332 | .009530 | 000904   | .001507  |
| 37-47       | .002350      | .005484 | .013614 | .004179 | .006258  | 004485   |
| 48-60       | .011195      | 002749  | .000669 | .000400 | 000778   | .000930  |
| POWER SPE   | CTRUM        |         |         |         |          |          |
| K           |              | U       | ٧       |         | W        | T        |
|             | 105          |         | 105.03  | 100     |          |          |
|             |              | -02     | 10E-03  | 10E     |          | 10E-02   |
| 0           |              | 4632    | .025193 |         | 9630     | . 004597 |
| 1           |              | 7693    | .420171 |         | 8525     | .065972  |
| 2<br>3<br>4 |              | 9127    | .731109 |         | 8222     | -115528  |
| 3           |              | 3227    | .909453 |         | 3347     | .154951  |
|             |              | 8825    | .679128 |         | 8559     | .113274  |
| 5           |              | 2185    | .597391 |         | 0226     | .070889  |
| 6           |              | 1918    | .716742 |         | 6237     | .063715  |
| 7-8         |              | 8277    | .841726 |         | 5561     | .051116  |
| 9-11        |              | 2939    | .592189 |         | 5836     | .047348  |
| 12-15       |              | 6593    | .538702 |         | 9648     | .029853  |
| 16-20       |              | 1762    | .391024 |         | 8804     | .020458  |
| 21-27       |              | 4766    | .276252 |         | 2778     | .012908  |
| 28-36       |              | 3961    | .234607 |         | 6226     | .007630  |
| 37-47       |              | 6590    | .145200 |         | 9959     | .003908  |
| 48-60       | .01          | 2147    | .107974 | .07     | 4124     | .002198  |

RUN NO. 82A 40M 11-02-62 0356-0511 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

| -       | 350 | COCOCCTOUR | COMARTANCE |
|---------|-----|------------|------------|
| RUKHALI | LED | COSPECTRUM | LUTAKIANLE |

| м         | U.V      | U, W     | U.T     | V, W    | V.T     | W, T    |
|-----------|----------|----------|---------|---------|---------|---------|
|           | 0.11190  | 0.77940  | 0.13281 | 0.40309 | 0.68690 | 0.47844 |
|           | 10E-01   | 10E-02   | 10E-01  | 10E-02  | 10E-02  | 10E-02  |
| 11        |          |          |         |         |         |         |
| 0         | 076034   | 018640   | .714077 | 084771  | .023973 | .044787 |
| 1         | 132996   | .132823  | .358608 | 045365  | 052637  | .110986 |
| 2         | 100370   | .004541  | .236279 | .008537 | 047469  | .038063 |
| 3         | 048782   | .100185  | .218475 | 021149  | .017561 | .073803 |
| 4         | 012462   | .091493  | .222004 | 050643  | .058288 | .092535 |
| 5         | 017973   | .116306  | .145264 | 105419  | .015636 | .073277 |
| 6         | 022676   | .126247  | .181573 | 072443  | .014151 | .111555 |
| 7         | 022352   | .127900  | .179737 | 010990  | .017848 | .092054 |
| 8         | .013753  | .095485  | .115730 | 009827  | .054671 | .061677 |
| 9         | .002733  | .035106  | .056901 | 017201  | .014527 | .031031 |
| 10        | .046276  | . 058454 | .019452 | .024209 | -061464 | .011504 |
| 11        | .024977  | . 026923 | 035813  | 026470  | .021672 | .022954 |
| 12        | 003633   | 012133   | 010205  | .010821 | .004896 | 013813  |
| 13        | 025380   | .017943  | 043392  | 006946  | 036503  | .025792 |
| 14        | 031233   | .015082  | 049689  | .035144 | 066629  | .012319 |
| 15        | .011384  | 001473   | 128687  | 005951  | 012061  | 039853  |
| 16        | .003674  | 020931   | 138612  | 004706  | 022450  | .000112 |
| 17        | .014555  | . 024404 | 093363  | 024822  | 061398  | .025704 |
| 18        | 011442   | 089259   | 089966  | 036415  | 062053  | 032621  |
| 19        | .026601  | 083199   | 133623  | .049647 | 049659  | 076261  |
| • /       | ******** | *******  |         |         |         |         |
| 20        | .022589  | 077490   | 106074  | .047842 | 073967  | 034388  |
| 21        | .017822  | 075898   | 039124  | .021809 | 041043  | 073196  |
| 22        | .035740  | 072662   | 076769  | 004754  | 037898  | 032929  |
| 23        | .009040  | 096968   | 091486  | 002981  | 044767  | 090342  |
| 24        | • 044570 | 114052   | 070023  | .024352 | 016265  | 114516  |
| 25        | .074382  | 145232   | 088675  | .023772 | .008873 | 122483  |
| 26        | .105269  | 075444   | 094474  | .018251 | .060784 | 080902  |
| 27        | .084325  | 100693   | 080869  | .018177 | .042455 | 099477  |
| 28        | .104152  | 023368   | 096651  | .029779 | .068594 | 049685  |
| 29        | .142909  | 092423   | 052845  | -017272 | .102043 | 134500  |
| 30        | .079959  | 004721   | 099567  | .118143 | .070118 | .010550 |
|           |          |          |         |         |         |         |
| COSPECTR  | UM       |          |         |         |         |         |
| 003. 201. | •        |          |         |         |         |         |
| K         | U• V     | U.W      | U,T     | V,W     | -V,T    | W.T     |
|           |          |          |         |         |         |         |
|           | 10E-03   | 10E-03   | 10E-02  | 10E-03  | 10E-03  | 10E-03  |
| 0         | 113543   | .178311  | .070310 | 042152  | 004705  | .093244 |
| ì         | 452153   | .636297  | .272274 | 136357  | .084500 | .333959 |
| 2         | 245444   | .178824  | .144089 | 054050  | .034036 | .110077 |
| 3         | 214450   | 078069   | .062426 | 015529  | 108677  | 000783  |
| 4         | 199600   | 096761   | .022520 | .009181 | 109171  | 020881  |
| _         |          |          |         |         |         |         |
| 5         | 106312   | 114445   | .024042 | .033627 | 039010  | 046209  |
| 6         | 035125   | 095128   | .029068 | .035409 | 013871  | 034318  |
| 7         | 027774   | 017670   | .029455 | .011070 | 006423  | 003263  |
| 8         | 090211   | .043487  | .036038 | .000395 | 038969  | .021302 |
| 9-11      | 042947   | .028433  | .030973 | 039274  | 022260  | .024144 |
| 12-14     | .041276  | .000862  | .021556 | 037596  | .031686 | .000705 |
| 15-21     | .045276  | 005454   | .027203 | 006196  | .049996 | .002637 |
| 22-30     | .048783  | 129749   | .020133 | .000203 | .025750 | 042003  |
|           |          |          |         |         |         |         |

RUN NO. 82A 40M 11-02-62 0356-0511 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

| H              | u,v               | U. W             | U.T               | V.W                | V.T               | W.T                |
|----------------|-------------------|------------------|-------------------|--------------------|-------------------|--------------------|
|                | 0.11190           | 0.77940          | 0.13281           | 0.40309            | 0.68690           | 0.47844            |
|                | 10E-01            | 10E-02           | 10E-01            | 10E-02             | 10E-02            | 10E-02             |
| 1              | .041132           | 118168           | .032091           | .009219            | 041001            | .210588            |
| 2              | .069981           | 026591           | .023769           | 019531             | 093996            | .045043            |
| 3              | .132554           | 035661           | .035946           | .044845            | 116342            | .010962            |
| 4              |                   | 001431           |                   |                    |                   |                    |
|                | .084004           |                  | .001558           | 000803             | ~.062501          | .049499            |
| 5              | .114217           | .007169          | .009847           | 110326             | 091364            | .083503            |
| 6              | .138674           | .011355          | -026766           | 115876             | 117375            | 022283             |
| 7              | . 169374          | .016223          | .054301           | 057088             | 153470            | .043012            |
| 8              | .115826           | .010283          | .088205           | 121386             | 122329            | .111980            |
| 9              | .164719           | 033705           | .028598           | 128315             | 119701            | .071620            |
| 10             | .174063           | 003050           | .072983           | 034305             | 133370            | .031976            |
| 11             | . 194267          | .046970          | .073546           | 037786             | 147360            | .031897            |
| 12             | .212958           | .051469          | .090856           | 091553             | 202459            | .057131            |
| 13             | .182194           | .025455          | .056891           | 179335             | 182903            | .024365            |
| 14             | .132596           | .038541          | .087344           | 058493             | 118676            | .026849            |
| 15             | .118116           | .004667          | .085495           | 030418             | 147015            | .076611            |
| 15             | .110110           | .004001          | .003473           | 030416             |                   | .076011            |
| 16             | .138343           | .011883          | .073109           | 046150             | 184598            | 004891             |
| 17             | .109564           | .036075          | .103658           | 065802             | 147343            | .013153            |
| 18             | .062902           | .041535          | -118692           | 092719             | 121395            | 010012             |
| 19             | .093944           | .030412          | .107128           | 032530             | 134470            | .010122            |
| 20             | .045031           | .071147          | .077907           | 084130             | 112580            | 048954             |
| 20             | .043(32           | ******           |                   | 1001230            | 1112300           |                    |
| 21             | .047970           | .025634          | .045481           | .001839            | 089929            | .000340            |
| 22             | .080283           | 046976           | .054466           | 066737             | 063875            | .056364            |
| 23             | .095320           | .005470          | 013808            | .001939            | 096363            | .021412            |
| 24             | .090520           | 024143           | .035439           | .027829            | 063339            | .020179            |
| 25             | .045147           | 080512           | 012671            | 003120             | 024507            | .050977            |
| 26             | .040736           | 001443           | 030857            | .045945            | 003114            | 035362             |
| 27             | .072064           | 017784           | 065241            | .023546            | 022935            | .009673            |
| 28             | .086046           | 085401           | 053560            | .035866            | 023074            | .039874            |
|                | . 099546          |                  | 069981            | .033866            | 064033            | 006658             |
| 29             |                   | 028506           |                   |                    | .011469           | 046744             |
| 30             | .039888           | 018601           | 082666            | 032638             | .011469           | 046744             |
| QUADRATUR      | E SPECTRUM        |                  |                   |                    |                   |                    |
| K              | U,V               | U.W              | U, T              | V, W               | V,T               | W, T               |
|                | 10E-02            | 10E-03           | 10E-03            | 10E-03             | 10E-03            | 10E-03             |
| 1              | .158894           | .105983          | .856561           | 290643             | 946372            | .192853            |
| 2              | .073528           | 009767           | .222343           | 128890             | 361545            | .126645            |
| 3              | .019243           | 084205           | 076176            | 018849             | 061044            | .072181            |
| 4              | 000961            | 051320           | .008388           | .015623            | 047239            | .026395            |
| 5              |                   | 052605           | 007517            | .037262            | 060702            | .034325            |
| 9              | .005354           | 072007           |                   |                    |                   |                    |
| 6              | .011870           | 053922           | 016248            | .044612            | 052547            | .045980            |
| 7              | .007346           | 057798           | .064781           | .048088            | 039998            | .041711            |
| 8              | .002529           | 121765           | .073493           | . 054099           | 025527            | .072968            |
| 9-11           | .001804           | 067177           | .081125           | 014885             | 048087            | .068614            |
| 12-14          | .000548           | 056413           | .000120           | 007584             | .002976           | .048280            |
|                |                   | 0/0535           | 002465            | 003041             | 021464            | 003544             |
| 15-21<br>22-30 | 002901<br>.005639 | 060537<br>052914 | 002405<br>-025950 | .002841<br>.010909 | .021484<br>011824 | .093566<br>.038147 |
| £ E - 30       | . 003037          |                  |                   |                    |                   |                    |

RUN NO. 82A 40M 11-02-62 0356-0511 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

# NORMALIZED AUTOCOVARIANCE

|              | - NOTOGOVANIANCE   |                  |                        |                    |
|--------------|--------------------|------------------|------------------------|--------------------|
| M            | U                  | V                | W                      | 1                  |
|              | 0.21636            | 0.57872          |                        |                    |
|              | 10E-01             | 10E-02           | 0.28077<br>10E-02      | 0.81529<br>10E-02  |
| 0            | 1.000000           | 1.000000         |                        |                    |
| 1            | -486201            | •403083          | 1.000000               | 1.000000           |
| 2            | -354952            | .295419          | •011483<br>-•001305    | •409363            |
| 3            | -290150            | .277236          | • 008493               | -243600            |
| 4            | •243039            | -265858          | .085045                | •271948<br>•309250 |
| 5            | -209094            | -232481          | 070560                 |                    |
| 6            | .239785            | .195492          | 098804                 | -191346            |
| 7<br>8       | -214428            | .085548          | .092188                | -145929            |
| 9            | •107511            | -065657          | • 007820               | •198232<br>•102634 |
|              | •082263            | •026692          | .024149                | 032609             |
| 10           | .020276            | 004506           | m 077414               |                    |
| 11           | 038279             | 032972           | 077614<br>.039611      | 024969             |
| 12           | .019158            | 056406           | .031817                | 075489             |
| 13           | 057115             | 108925           | 039891                 | 098891             |
| 14           | 036767             | 160630           | 002975                 | 124787<br>108173   |
| 15           | 104710             | - 112020         |                        | 0200213            |
| 16           | 071996             | 113939<br>054751 | 103445                 | 235683             |
| 17           | 060569             | 006163           | 005413                 | 217955             |
| 18           | 076894             | 180237           | 041856                 | 154099             |
| 19           | 136797             | 109340           | -• 042764<br>-• 065874 | 168319<br>182612   |
| 20           | 126549             | 0.000            |                        | *102012            |
| 21           | 050664             | 068223           | 025253                 | 169353             |
| 22           | 083439             | 074039           | 002872                 | 083083             |
| 23           | 117977             | 035702<br>020257 | .028366                | 136380             |
| 24           | 112621             | 051463           | 040772<br>027182       | 136885             |
| 25           | - 124242           |                  | 7021102                | 094168             |
| 26           | 136342<br>184921   | 037578           | 080062                 | 119539             |
| 27           | 164018             | 066061           | 159188                 | 071443             |
| 28           | 172744             | 077800           | .012884                | 057523             |
| 29           | 144600             | 012306<br>041861 | 058429                 | 087474             |
| 30           |                    | -+041001         | 055967                 | 063628             |
| 30           | 181498             | 142666           | 067067                 | 065195             |
| POWER SPECTI | RUM                |                  |                        |                    |
| K            | U                  |                  |                        |                    |
|              | Ū                  | V                | W                      | T                  |
|              | 10E-02             | 10E-02           |                        |                    |
| •            |                    | *0L-0Z           | 10E-03                 | 10E-02             |
| 0            | .163749            | .034981          | .036274                | 020070             |
| 1<br>2       | .587998            | .135078          | .170624                | -039970            |
| 3            | -294323            | .079634          | .115613                | -192992            |
| 4            | -153876            | .046265          | .090911                | •123491<br>•059070 |
| _            | .082988            | .020829          | -088786                | .020610            |
| 5            | .061270            | .013776          | 100:::                 |                    |
| 6            | .064119            | .013776          | -109644                | -017538            |
| 7            | .073684            | .015530          | •115322                | -019820            |
| 8            | -085684            | .014417          | • 097160               | -019876            |
| 9-11         | .073503            | .017443          | • 096976<br>• 085846   | • 023792           |
| 12-14        | •042586            |                  | - 00,040               | • 025693           |
| 15-21        | ·042586<br>·054734 | .016909          | .092121                | .023636            |
| 22-30        | •055137            | -016581          | · 146062               | .027644            |
|              |                    | -018610          | .166005                | .023260            |
|              |                    |                  |                        |                    |

RUN NO. 82A, 16M 11-02-62 0356-0511 EST RUN NO. 82A, 40M 11-02-62 0356-0511 EST 61 POINT RUNNING HEAN, NO BLOCK AVERAGING

#### COMPRENCE WITH QUADRATURE

| K     | U       | ٧       | M.       | T       |
|-------|---------|---------|----------|---------|
|       | 108 00  | 10E 00  | 10E 00   | 10E 00  |
| 0     | -112417 | .130264 | .073031  | .115326 |
| 1     | .086039 | .192373 | .070379  | .119192 |
| 2     | .011761 | .295034 | - 193176 | .159242 |
| 3     | -154347 | .368476 | .283131  | .192932 |
| 4     | .248043 | .348932 | .301323  | .174857 |
| 5     | .148717 | .210662 | .218771  | .093078 |
| 6     | .021563 | .091095 | .133634  | .058611 |
| 7-8   | .064716 | .148357 | .126093  | .098147 |
| 9-11  | .066177 | .094746 | . 142499 | .122548 |
| 12-15 | .098519 | .114563 | .166557  | .112008 |
| 16-20 | .098292 | .091274 | .080921  | .086005 |
| 21-27 | -049200 | .097757 | .050509  | .073389 |
| 28-36 | .086978 | .114054 | .118714  | .097114 |
| 37-47 | .107465 | .077620 | .082273  | .110217 |
| 48-60 | -081192 | -122267 | .098673  | .085919 |

## 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

#### COHERENCE WITH QUADRATURE

| K           | U       | V       | W        | T        |
|-------------|---------|---------|----------|----------|
|             | 10E 00  | 10E 00  | 10E 00   | 10E 00   |
| 0           | .898005 | .786040 | .557690  | .342114  |
| 1           | .728596 | .688275 | . 439622 | .720426  |
| 1<br>2<br>3 | -404162 | .479722 | .326507  | .617386  |
| 3           | -102966 | .322842 | .301799  | .508255  |
| 4           | -163676 | .206363 | .423639  | .379573  |
| 5           | .240824 | 394540  | .253328  | .138553  |
| 5<br>6<br>7 | .246526 | .227129 | .167163  | .097071  |
| 7           | -221085 | .137866 | .033278  | .437103  |
| 8           | .052399 | .039513 | .076021  | .297171  |
| 9-11        | -206695 | .259355 | .120101  | .194006  |
| 12-14       | -218004 | .343050 | .294031  | .139076  |
| 15-21       | .342385 | .379201 | . 347361 | . 290365 |
| 22-30       | .195531 | .301056 | . 350279 | .306907  |

## RUN NO. 82C 16H 11-02-62 0642-0743 EST

#### GROSS STATISTICS

| 1 CI<br>TRANSITIONAL<br>LAND | WIND<br>SIGMA<br>SIGMA  | A 7.8 DEG                   | WIND DIRE<br>SOLAR RAD<br>NET RADIA |                                    |
|------------------------------|-------------------------|-----------------------------|-------------------------------------|------------------------------------|
|                              | WITH NO<br>RUNNING MEAN | WITH 301 POINT RUNNING MEAN | WITH 61 POINT<br>RUNNING MEAN       | 301 PT RUN MEAN<br>10 PT BLOCK AVG |
| VARIANCES                    |                         |                             |                                     |                                    |
| บ                            | 0.28005E-00             | 0.46831E-01                 | 0.30777E-01                         | 0.30096E-01                        |
| V                            | 0.13992E-00             | 0.40289E-01                 | 0.23543E-01                         | 0.26371E-01                        |
| W                            | 0.77294E-02             | 0.70634E-02                 | 0.68765E-02                         | 0.26760E-02                        |
| Ţ                            | 0.65085E-01             | 0.47843E-02                 | 0.34957E-02                         | 0.29931E-02                        |
| E                            | 0.21385E-00             | 0.47104E-01                 | 0.30598E-01                         |                                    |
| GUSTINESS RATIO              | s<br>-                  |                             |                                     |                                    |
| U                            | 0.18699                 | 0.07647                     | 0.06199                             | 0.06130                            |
| Ÿ                            | 0.13217                 | 0.07093                     | 0.05422                             | 0.05738                            |
| W                            | 0.03107                 | 0.02970                     | 0.02930                             | 0.01828                            |
| COVARIANCES                  |                         |                             |                                     |                                    |
| U, V                         | 0.80477E-01             | 0.61439E-02                 | 0.43795E-02                         | 0.43785E-02                        |
| U.W                          | 0.25849E-02             | -0.29435E-02                | -0.26879E-02                        | -0.90578E-03                       |
| U, T                         | -0.10134E-00            | 0.36245E-02                 | 0.25263E-02                         | 0.23966E-02                        |
| V, W                         | 0.27191E-02             | 0.85971E-03                 | -0.71876E-03                        | 0.18213E-02                        |
| V.T                          | -0.35689E-01            | 0.21331E-02                 | 0.19829E-02                         | 0.80645E-03                        |
| W.T                          | -0.41882E-02            | -0.10033E-02                | -0.10344E-02                        | -0.35034E-03                       |
| WE                           | -0.81753E-03            | 0.77170E-04                 | 0.10851E-04                         |                                    |
| NORMALIZED COVA              | RIANCES                 |                             |                                     |                                    |
|                              |                         |                             |                                     |                                    |
| u,v                          | 0.40656                 | 0.14144                     | 0.16270                             | 0.15542                            |
| U,W                          | 0.05556                 | -0.16184                    | -0.18476                            | -0.10093                           |
| U,T                          | -0.75063                | 0.24214                     | 0.24356                             | 0.25251                            |
| V.W                          | 0.08268                 | 0.05096                     | -0.05649                            | 0.21681                            |
| V,T                          | -0.37399                | 0.15364                     | 0.21857                             | 0.09077                            |
| W <sub>P</sub> T             | -0.18673                | -0.17260                    | -0.21098                            | -0.12379                           |

RUN NO. 82C 16M 11-02-62 0642-0743 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

|          | ALIELO GOGI EGINGI |                    |                   |   |   |                    |
|----------|--------------------|--------------------|-------------------|---|---|--------------------|
| M        | U.V                | U.W                | U, T              | V. W                                    | V,T                                     | W <sub>F</sub> T   |
|          | 0.04001            |                    |                   |   |   |                    |
|          | 0.26921<br>10E-01  | 0.14545<br>10E-01  | 0.10373<br>10E-01 | 0.12724<br>10E-01                       | 0.90741<br>10E-02                       | 0.49028<br>10E-02  |
|          | 102 01             |                    | 101-01            | 101-01                                  | 100-02                                  | 105-05             |
| 0        | .162462            | 184822             | .243343           | 056556                                  | .218643                                 | 210861             |
| 1        | .138552            | 144998             | .214399           | 015680                                  | .173488                                 | 151139             |
| 2        | .093671            | 071262             | .159319           | .046385                                 | .100796                                 | 074560             |
| 3        | .057688            | 018125             | -115273           | .085563                                 | .050496                                 | 038744             |
| 7        | .039688            | 002269             | .092769           | .089667                                 | .016110                                 | 021633             |
| 5        | .024409            | .002115            | .067695           | .069668                                 | 015008                                  | 004400             |
| 6        | .007556            | .005936            | .042175           | .039527                                 | 040491                                  | .008165            |
| 7        | 006206             | .007441            | .024851           | .019082                                 | 051166                                  | .019508            |
| 8        | 019439             | .007237            | .009315           | .005905                                 | 053015                                  | .022148            |
| 9        | 031354             | .025700            | .002056           | .007216                                 | 046965                                  | .018875            |
| 10       | 045977             | .044556            | 001988            | .018113                                 | 035287                                  | .013694            |
| 11       | 059515             | .062852            | 009263            | . 036465                                | 030416                                  | .013009            |
| 12       | 059112             | .058124            | 005564            | .033567                                 | 031660                                  | .015097            |
| 13       | 049618             | .037906            | .000056           | .022686                                 | 027015                                  | .014773            |
| 14       | 045054             | .021438            | 001716            | .010203                                 | 014714                                  | .014781            |
| 15       | 037588             | .003445            | 007500            | 003415                                  | 001245                                  | .008541            |
| 16       | 027693             | 002526             | 015600            | 011548                                  | .011292                                 | .003166            |
| 17       | 025406             | 002474             | 011971            | 015613                                  | .017896                                 | .005792            |
| 18       | 021733             | 004219             | 011706            | 003343                                  | .010814                                 | .004474            |
| 19       | 010235             | 013116             | 006599            | .003746                                 | .001580                                 | 003208             |
| 20       | 000/3/             | 021/07             | 005501            | 001044                                  | 001073                                  | 221521             |
| 20<br>21 | .000434<br>.010921 | 021407<br>024615   | 005521<br>010871  | 001944<br>006675                        | 001073<br>003912                        | 006536             |
| 22       | .018835            | 022907             | 014094            | 015292                                  | 006505                                  | .010430<br>.023365 |
| 23       | .016334            | 024259             | 025159            | 026539                                  | 003395                                  | .029641            |
| 24       | .009222            | 025724             | 045634            | 033283                                  | .003751                                 | .035201            |
|          |                    |                    |                   |   |   |                    |
| 25       | .006340            | 013640             | 060714            | 033431                                  | .013425                                 | .035360            |
| 26<br>27 | .014288<br>.016928 | 011166<br>012085   | 059235<br>055367  | 032730<br>030879                        | .024179<br>.022708                      | .029400<br>.023959 |
| 28       | .008343            | 026021             | 047752            | 035644                                  | .013931                                 | .019487            |
| 29       | .000300            | 042965             | 033883            | 047188                                  | 001790                                  | .008329            |
|          |                    |                    | 00.0              | 111                                     |   |                    |
| 30       | .000910            | 054949             | 018267            | 065272                                  | 002132                                  | 003441             |
| 31       | 000947             | 048486             | 020353            | 075046                                  | .007970                                 | 004228             |
| 32<br>33 | 009378<br>015921   | 039592<br>028356   | 030112<br>037463  | 065700<br>044550                        | .016378<br>.024383                      | 007478<br>007114   |
| 34       | 014879             | 010243             | 040261            | 021218                                  | .024735                                 | 005566             |
| -        |                    |                    |                   |   |   |                    |
| 35       | 012929             | 001564             | 046096            | 006576                                  | .025197                                 | 005309             |
| 36       | 003543             | .013953            | 050377            | 003247                                  | .026597                                 | 005724             |
| 37<br>38 | .007826<br>.011781 | .023457<br>.040517 | 060089<br>068396  | .002355<br>.008983                      | .017189<br>.005311                      | 001597<br>.011422  |
| 39       | .009088            | .056398            | 070992            | .008092                                 | 001589                                  | .026410            |
|          | ******             |                    |                   |   |   |                    |
| 40       | .005888            | .071551            | 075713            | .014295                                 | 001928                                  | .032486            |
| 41       | .009355            | .087006            | 070037            | .019295                                 | .004370                                 | .022655            |
| 42       | .014380            | .101965            | 053220            | .018427                                 | .011079                                 | .018415            |
| 43       | .017394<br>.020297 | .122136<br>.125686 | 038322<br>027539  | .012868                                 | .012840<br>.006412                      | .032394<br>.038241 |
| **       | .020271            |                    |                   | *************************************** | *************************************** |                    |
| 45       | .019176            | .107333            | 012669            | 011812                                  | 000213                                  | .030117            |
| 46       | .009885            | .089028            | .000126           | 019256                                  | 005410                                  | .021080            |
| 47       | 004603             | .072465            | .003362           | 015186                                  | 016807                                  | .021717            |
| 48       | 020734             | .052817            | .006360           | 001706                                  | 023191                                  | .022839            |
| 49       | 024775             | .028451            | .015868           | .006003                                 | 022320                                  | .015045            |
| 50       | 030056             | .019339            | .020398           | .006198                                 | 023384                                  | .011547            |
| 51       | 034126             | .016913            | .019312           | 005767                                  | 018906                                  | .003772            |
| 52       | 027079             | .006754            | .014309           | 014987                                  | 015854                                  | 005221             |
| 53       | 013613             | 018688             | .017644           | 018011                                  | 012652                                  | 007142             |
| 54       | 014382             | 036025             | .017336           | 013317                                  | 019692                                  | 010012             |
| 55       | 022919             | 039483             | .019432           | 003715                                  | 033160                                  | 011775             |
| 56       | 028831             | 024707             | .012204           | .010250                                 | 050521                                  | 004937             |
| 57       | 027804             | 022009             | .006283           | .009139                                 | 061694                                  | 002685             |
| 58       | 022595             | 032966             | .009150           | .007044                                 | 060430                                  | 004353             |
| 59       | 023505             | 043884             | .019205           | .009540                                 | 051733                                  | 008480             |
| 60       | 015546             | 038040             | .018607           | .010806                                 | 043243                                  | 010367             |
| 50       |                    | . 0,0000           |                   |   | 1013513                                 |                    |

RUN NO. 82C 16M 11-02-62 0642-0743 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| NORMALIZ      | ED QUADRATURB                           | COVARIANCE         |                    |                    |                    |   |
|---------------|---|--------------------|--------------------|--------------------|--------------------|---|
| M             | U.V                                     | U,W                | U, T               | V,W                | V,T                | W. T                                    |
|               | -                                       |                    |                    |                    | 0.00741            | 0.40000                                 |
|               | 0.26921<br>10E-01                       | 0.14545<br>10E-01  | 0.10373<br>10E-01  | 0.12724<br>10E-01  | 0.90741<br>10E-02  | 0.49028<br>10E-02                       |
|               | 105-01                                  | 105-01             | 105-01             | 100 01             |                    |   |
| 1             | .006133                                 | 027742             | .032444            | 004251             | 009339             | 000767                                  |
| 2             | .002291                                 | 036173             | .051633            | 012532             | 001424             | 008338                                  |
| 3             | 011388                                  | 031416             | .057808            | 023604<br>030906   | .009438<br>.021515 | 010308<br>011348                        |
| <b>4</b><br>5 | 023229<br>036924                        | 041187<br>049882   | .061883<br>.051182 | 041796             | .036092            | 013392                                  |
| ,             | 030924                                  | -1047002           | •071102            |                    |                    | *************************************** |
| 6             | 050126                                  | 049314             | .038494            | 049343             | .048653            | 005969                                  |
| 7             | 054212                                  | 038743             | .041547            | 049176             | .045902            | 006396                                  |
| 8             | 048709                                  | 020016             | .040578<br>.039337 | 042447<br>034730   | .037166<br>.033361 | 009072<br>.004740                       |
| 9<br>10       | 043003<br>035070                        | 012983<br>.000601  | .036685            | 039610             | .038139            | .023330                                 |
| ••            | *************************************** |                    |                    |                    |                    |   |
| 11            | 018390                                  | .007567            | .035307            | 042766             | .039948            | .028538                                 |
| 12            | .000614                                 | .013968            | .023856            | 036655             | .034953<br>.027578 | .028984<br>.033790                      |
| 13<br>14      | .011034<br>.004990                      | .022254<br>.032178 | .009448<br>000938  | 028336<br>025862   | .027558            | .029614                                 |
| 15            | 004408                                  | .041476            | 000344             | 032826             | .034179            | .014955                                 |
|               |   |                    |                    |                    |                    |   |
| 16            | 010624                                  | .037485            | .003585            | 037131             | .039273            | 004461                                  |
| 17            | 012190                                  | .030586<br>.017666 | .002219<br>.000457 | 030563<br>015022   | .041365<br>.042299 | 002834<br>003114                        |
| 18<br>19      | .001224<br>.010132                      | .014165            | 006333             | 001380             | .039009            | 014080                                  |
| 20            | .017304                                 | .010734            | 017680             | .011702            | .036072            | 018451                                  |
|               |   |                    |                    |                    | 11.2               |   |
| 21            | .017345                                 | .011852            | 020119             | .014660<br>.005222 | .030518<br>.023796 | 016524<br>006078                        |
| 22<br>23      | .012981<br>.003501                      | .019119<br>.037082 | 014526<br>014187   | 009780             | .029350            | 001051                                  |
| 24            | .000847                                 | .043668            | 010789             | 019431             | .040928            | .001481                                 |
| 25            | .006657                                 | .033706            | 004256             | 028007             | .047224            | .012503                                 |
|               |   |                    |                    |                    | 04.04.00           | 017071                                  |
| 26            | .010909<br>.009881                      | .016492<br>000604  | 000320<br>000067   | 023918<br>022129   | .049600<br>.050096 | .017971<br>.019272                      |
| 27<br>28      | .012946                                 | .004603            | .003304            | 012525             | .042438            | .013923                                 |
| 29            | .021142                                 | .009214            | .005768            | .011033            | .026366            | .009757                                 |
| 30            | .030752                                 | .017067            | .007187            | .039275            | .004828            | .002032                                 |
| ••            | 030414                                  | 010500             | .013350            | .050743            | 010249             | .008552                                 |
| 31<br>32      | .030614<br>.025995                      | .019509<br>.019085 | .022811            | .046069            | 013865             | 004723                                  |
| 33            | .015275                                 | .021268            | .027934            | .038385            | 015984             | 014065                                  |
| 34            | .008350                                 | .016994            | .022571            | .032206            | 019165             | 013970                                  |
| 35            | .006053                                 | .008603            | .015766            | .039650            | 025121             | 012453                                  |
| 36            | .006949                                 | 000071             | .012003            | .049799            | 026509             | 016944                                  |
| 37            | .002843                                 | 000787             | .004699            | .055481            | 027930             | 026317                                  |
| 38            | 003333                                  | 004854             | 000030             | .052191            | 030667             | 029693                                  |
| 39            | 007265                                  | 014331             | .001979            | .034196            | 030068             | 034333                                  |
| 40            | 022579                                  | 012450             | 001255             | .009392            | 022212             | 043869                                  |
| 41            | 032998                                  | 019924             | 003733             | 012494             | 023250             | 045468                                  |
| 42            | 036592                                  | 027866             | 007165             | 024435             | 028758             | 026814                                  |
| 143           | 028850                                  | 028255             | 015869             | 035289             | 028716             | 000281                                  |
| 44<br>45      | 024064<br>015838                        | 034937<br>045041   | 027537<br>033209   | 038316<br>042579   | 026075<br>026946   | .026049<br>.048728                      |
| 43            | .013030                                 |                    |                    | ******             |                    | ***                                     |
| 46            | 006435                                  | 052780             | 030513             | 043522             | 033205             | .054599                                 |
| 47            | .002788                                 | 051984             | 024755             | 047168             | 029215             | .048121                                 |
| 48            | .014438<br>.026982                      | 049703<br>047257   | 016621<br>010462   | 046654<br>027448   | 016781<br>003759   | .050463<br>.047870                      |
| 50            | .039321                                 | 037605             | 015158             | .002424            | 001610             | .037965                                 |
|               |   |                    |                    |                    |                    |   |
| 51            | .048146                                 | 030433             | 024978             | .027890            | 002183             | .035939                                 |
| 52            | .048990                                 | 019897             | 032339<br>026670   | .036207            | .003802<br>.010652 | .033119<br>.028020                      |
| 53<br>54      | .039008<br>.023909                      | 014535<br>008658   | 015630             | .028506<br>.025158 | .015104            | .022259                                 |
| 55            | .014928                                 | .005945            | 014690             | .018537            | .014751            | .018749                                 |
|               |   |                    |                    |                    |                    |   |
| 56            | .022134                                 | .007517            | 011346             | .006864            | .011596            | .011256                                 |
| 57<br>58      | .026839<br>.028006                      | .012822            | 008682<br>.003440  | 001466<br>022936   | .012247<br>.016292 | 001556<br>012032                        |
| 59            | .022289                                 | .033350            | .009723            | 043618             | .017723            | 014240                                  |
| 60            | .013043                                 | .045960            | .011680            | 040003             | .006061            | 008545                                  |
|               |   |                    |                    |                    |                    |   |

RUN NO. 82C 16M 11-02-62 0642-0743 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

## NORMALIZED AUTOCOVARIANCE

| ,        |                      |                    |                      |                    |
|----------|----------------------|--------------------|----------------------|--------------------|
| M        | U                    | ٧                  | W                    | т                  |
|          |                      |                    |                      |                    |
|          | 0.30773              | 0.23550            | 0.68751              | 0.34963            |
|          | 10E-01               | 10E-01             | 10E-02               | 10E-02             |
| 0        | 1.000000             | 1.000000           | 1.000000             | 1.000000           |
| 1        | .784,394             | .791629            | .692095              | .811790            |
| 2        | .535163              | .503538            | . 376092             | .567883            |
| 3        | .369237              | .289629            | . 209785             | .412370            |
| 4        | -268165              | .153545            | .111241              | .309361            |
| 5        | .193211              | .065414            | 044170               | 217252             |
| 6        | .127723              | .019076            | .064170<br>.024344   | •217352<br>•141577 |
| 7        | .076873              | 011608             | 001395               | .084886            |
| 8        | .019583              | 040018             | 030444               | .039692            |
| 9        | 038567               | 071168             | 068099               | .011215            |
| 10       | 000573               | 110170             | 111000               | 010001             |
| 10<br>11 | ~.080573<br>~.114333 | 110179<br>144410   | 111908<br>124189     | 018201<br>051354   |
| 12       | 142707               | 159125             | 123760               | 081548             |
| 13       | 164402               | 144340             | 111518               | 108240             |
| 14       | 173267               | 115533             | 081963               | 133207             |
|          | ••••                 | ••••               |                      |                    |
| 15       | 168736               | 085072             | 083027               | 149640             |
| 16       | 157900               | 067717             | 091911               | 159221             |
| 17       | 165593               | 051781             | 095889               | 172403             |
| 18       | 174958               | 042802             | 093237               | 185599             |
| 19       | 176456               | 048381             | 091132               | 180403             |
| 20       | 177301               | 067234             | 103602               | 168738             |
| 21       | 174349               | 088361             | 124819               | 170884             |
| 22       | 160006               | 091636             | 146604               | 182449             |
| 23       | 139810               | 094005             | 163492               | 197840             |
| 24       | 127757               | 091727             | 145591               | 201013             |
|          |                      |                    |                      |                    |
| 25       | 126980               | 083039             | 130498               | 193233             |
| 26       | 123987               | 069357             | 143203               | 177502             |
| 27       | 110681               | 069687             | 163161               | 163400             |
| 28<br>29 | 105497<br>091336     | 079483<br>097298   | 146905<br>089759     | 144167<br>112694   |
| 27       | 071556               | 07/270             | 007137               | 112074             |
| 30       | 051863               | 104760             | 036724               | 084224             |
| 31       | 012559               | 106840             | 003379               | 058285             |
| 32       | .003047              | 096900             | .019262              | 042074             |
| 33       | 005805               | 075701             | .040415              | 038908             |
| 34       | .001873              | 054978             | .043796              | 033043             |
| 35       | .020502              | 028654             | .038414              | 022038             |
| 36       | .029762              | .007774            | .038677              | 010833             |
| 37       | .040181              | .028600            | .036029              | 005668             |
| 38       | .031054              | .018764            | .029908              | .005185            |
| 39       | .012516              | .005999            | .016444              | .002954            |
| 40       | 00/513               | 000030             | 01/500               |                    |
| 40       | 004513               | 005875             | 014590               | 000797             |
| 41       | 015483               | 008973             | 040485               | .009498            |
| 42       | 020282               | .002023            | 052158               | .024068            |
| 43       | 030110               | .023552<br>.031225 | 054872               | .028142            |
| 44       | 033850               | •031225            | 054070               | .011756            |
| 45       | 026508               | .040435            | 034532               | 007058             |
| 46       | 027773               | .036976            | 010803               | 018255             |
| 47       | 027256               | .019913            | .012104              | 022424             |
| 48       | 033597               | 009824             | .015149              | 024345             |
| 49       | 034509               | 029130             | .015625              | 024472             |
| 50       | - N34104             | 032141             | 044463               | - 02/201           |
| 50<br>51 | 036186<br>035197     | 019027             | • 046653<br>• 070627 | 024381<br>022790   |
| 52       | 027270               | .002279            | .079730              | 022789             |
| 53       | 014222               | .013884            | .080392              | 028087             |
| 54       | .005912              | .000262            | .066473              | 032906             |
|          |                      | 014000             | 0.4000               |                    |
| 55<br>54 | .009552              | 016925<br>029352   | .043801              | 039731             |
| 56<br>57 | .001209              |                    | .026048              | 043514             |
| 57       | .000195<br>.012741   | 042126<br>045231   | • 024371<br>• 023013 | 038276             |
| 58<br>50 | .012741              | 049231<br>040701   | .013805              | 023488             |
| 59       | •030104              |                    | • 013003             | 002612             |
| 60       | .038962              | 038094             | 010241               | .023074            |
|          |                      |                    |                      |                    |

| RUN NC.<br>61 POINT | B2C 16M<br>FRUNNING MEA | 11-02-62<br>N, NO BLOCK | 0642-0743<br>AVERAGING | EST     |         |                  |
|---------------------|-------------------------|-------------------------|------------------------|---------|---------|------------------|
| COSPECTRU           | JM                      |                         |                        |         |         |                  |
| K                   | U,V                     | U,W                     | U, T                   | V.W     | V.T     | W. T             |
|                     | 10E-03                  | 10E-03                  | 10E-03                 | 10E-03  | 10E-03  | 10E-04           |
| 0                   | .048790                 | 032940                  | .061239                | .026218 | .036415 | 066663           |
| 1                   | . 225149                | 214468                  | .458470                | .240967 | .089179 | 707983           |
| 2                   | . 259139                | 037054                  | .396149                | .241396 | .048183 | 708676           |
| 3                   | • 459352                | 051400                  | .262914                | .128257 | -115446 | 724584           |
| 4                   | • 595837                | 342529                  | .203982                | 040055  | .164807 | 704647           |
| 5                   | .640337                 | 286539                  | .202703                | 029742  | .169292 | 530648           |
| 6                   | .508856                 | 183686                  | .165340                | .037284 | -186560 | 639800           |
| 7-8                 | . 191452                | 192084                  | .162240                | 048182  | .175275 | 747506           |
| 9-11                | .105538                 | 055080                  | .066967                | 038335  | •100929 | 366541           |
| 12-15               | .091849                 | 107391                  | .032580                | 112035  | .062609 | 307038           |
| 16-20               | .081459                 | 089337                  | .035945                | 075927  | .020040 | 203277           |
| 21-27               | .045778                 | 036343                  | .021437                | 029277  | .026748 | 179261           |
| 28-36               | .013573                 | 015009                  | .007928                | 010563  | .014059 | 105388           |
| 37-47               | .001435                 | 001356                  | 001702                 | 005855  | .003244 | 050421           |
| 48-60               | .002926                 | 001412                  | .002052                | 003601  | ,001646 | 018155           |
| QUADRATUR           | E SPECTRUM              |                         |                        |         |         |                  |
| K                   | U,V                     | U,W                     | U,T                    | V.M     | V.T     | W <sub>F</sub> T |
|                     | 10E-03                  | 10E-03                  | 10E-03                 | 10E-03  | 10E-03  | 10E-04           |
| 1                   | 016375                  | .137408                 | .077930                | 108862  | .207035 | .083832          |
| 2                   | 137607                  | .079554                 | .085007                | 187658  | -191469 | .157030          |
| 3                   | 312087                  | 102597                  | .103528                | 219802  | .084293 | -170813          |
| 4                   | 303657                  | 157575                  | .158927                | 077419  | 005859  | 066009           |
| 5                   | 140600                  | 145322                  | .142723                | 047888  | .034525 | .052747          |
| 6                   | 174690                  | 170855                  | .065007                | 108472  | .050298 | 077877           |
| 7-8                 | 055751                  | 104741                  | .047561                | .027226 | 003854  | 401397           |
| 9-11                | .058072                 | 015752                  | .032850                | 033032  | 002494  | .035342          |
| 12-15               | .097054                 | 015635                  | .032542                | .024597 | 020136  | .041583          |
| 16-20               | .009109                 | .005423                 | .008429                | .013384 | 017702  | 031584           |
| 21-27               | .000470                 | 017907                  | .001352                | 009189  | .003231 | .017035          |
| 28-36               | .014637                 | 011771                  | .004190                | .005924 | 006757  | 001571           |
| 37-47               | 002868                  | 001326                  | .000367                | .000870 | 001831  | .021082          |
| 48-60               | 001835                  | .002829                 | 000705                 | 001654  | 001012  | .001090          |
| POWER SPE           | CTRUM                   |                         |                        |         |         |                  |
| K                   | ı                       | J                       | ٧                      |         | м       | Ť                |
|                     | 10E-                    | -02                     | 10E-02                 | 10E     | -03     | 10E-03           |
| 0                   | .031                    | 1882                    | .024970                | . 02    | 0994    | .046498          |
| ĭ                   |                         | 0481                    | .179693                |         | 3696    | .383716          |
| ž                   | _                       | 2033                    | .207811                |         | 7616    | •460961          |
| 3                   |                         | 957                     | .228442                |         | 7749    | .498708          |
| 4                   |                         | 546                     | .193593                |         | 3455    | .349735          |
| 5                   | . 2 2 3                 | 1081                    | .188292                | . 36    | 3851    | - 220745         |

NUN NO. 82C 16M 11-02-62 0642-0743 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

| H         | U,V      | U, W    | U.T                | V.W                | V, T                                    | W, T              |
|-----------|----------|---------|--------------------|--------------------|---|-------------------|
|           | 0.28176  | 0.89748 | 0.94910            | 0.83982            | 0.88813                                 | 0.28289           |
|           | 10E-01   | 10E-02  | 10E-02             | 10E-02             | 10E-02                                  | 10E-02            |
|           | 100-01   | 101-02  | 105-05             | 105-05             | 105-05                                  | 100 02            |
| 0         | . 155395 | 100925  | .252510            | .216866            | .090803                                 | 123842            |
| ĭ         | . 059474 | .020763 | .130714            | . 196338           | .016008                                 | 008041            |
| ž         | - 083286 | 001180  | .077797            | . 147667           | .018530                                 | .006648           |
| 3         | . 050036 | 032913  | .024882            | .073307            | .017333                                 | .003895           |
| 4         | .061787  | .143724 | 059950             | .075894            | 034936                                  | .057966           |
| •         |          |         | •••                |                    | *************************************** |                   |
| 5         | 004817   | .053712 | 052144             | .047158            | 085799                                  | .041758           |
| 6         | 003108   | .030862 | 064857             | .010140            | 116805                                  | .006239           |
| 7         | . 005658 | 015067  | 061776             | 025091             | 086757                                  | 009817            |
| 8         | 032138   | 011495  | 104422             | 022929             | 098358                                  | 016000            |
| 9         | 040370   | 012435  | 041242             | 107966             | 046214                                  | 032725            |
|           |          |         |                    |                    |   |                   |
| 10        | 076317   | 024753  | 067359             | 121164             | 055825                                  | 040879            |
| 11        | 099564   | 096013  | 044820             | 122250             | 024945                                  | 021889            |
| 12        | 087936   | 076718  | 048993             | 159686             | 020114                                  | 014845            |
| 13        | 092736   | 013487  | 086751             | 181344             | 033399                                  | 070316            |
| 14        | 071783   | .018598 | 124781             | 192028             | .000844                                 | 018830            |
|           |          |         |                    |                    |   | - 10              |
| 15        | 069269   | 059690  | 096886             | 192343             | 013524                                  | .034598           |
| 16        | 097910   | .013421 | 080096             | 081359             | 002496                                  | .021782           |
| 17        | 069216   | 030416  | 073979             | 062146             | .019450                                 | .008719           |
| 18        | 052184   | 009693  | 039728             | 046156             | .094699                                 | 044567            |
| 19        | .012124  | .012765 | .001003            | 007559             | .090680                                 | 004942            |
|           |          |         |                    |                    |   |                   |
| 20        | .039523  | 020142  | .053775            | .017351            | .121164                                 | .006790           |
| 21        | .049318  | 014131  | .108689            | .001680            | .109484                                 | 035431            |
| 22        | .057590  | .024390 | .090683            | .072260            | .093361                                 | .005156           |
| 23        | .119922  | .003442 | .131296            | . 132658           | .097078                                 | 021334            |
| 24        | .089368  | .063486 | .169648            | .108594            | .118536                                 | 031344            |
|           | 020/72   | 052434  |                    | 121200             | 071553                                  | 0/2162            |
| 25        | - 029673 | .053414 | .110327            | .131280            | .071552                                 | .062152           |
| 26        | -045210  | .091089 | .108502            | .089441            | .042348                                 | .082272           |
| 27        | .074966  | .026851 | .094310            | .050897            | .068942                                 | .016934<br>013849 |
| 28        | 020570   | 042834  | .021315<br>.011347 | .100060<br>.063726 | .047405<br>.004915                      | .000305           |
| 29        | 002009   | 041770  | .011347            | .003720            | •004915                                 | • 000303          |
| 30        | .003472  | 018523  | .033487            | .040325            | 013226                                  | .001327           |
| 50        | . 003412 | 010727  | .033407            | ******             | *013220                                 | .001521           |
|           |          |         |                    |                    |   |                   |
| COSPECTRU | M        |         |                    |                    |   |                   |
| COSTECTAD |          |         |                    |                    |   |                   |
| K         | U,V      | U.W     | U, T               | V.W                | V, T                                    | W, T              |
| •         | •••      |         |                    | •                  |   | •                 |
|           |          |         |                    |                    |   |                   |
|           | 10E-02   | 10E-03  | 10E-03             | 10E-03             | 10E-03                                  | 10E-04            |
|           |          |         |                    | 100 000            |   |                   |
| 0         | 007107   | 011827  | 077340             | 025828             | 073664                                  | 098906            |
| 1         | .049736  | .045246 | 027132             | . 339427           | 336622                                  | 099305            |
| 2         | .117512  | .124508 | .370605            | •650295            | .007461                                 | .144938           |
| 3         | .096769  | .075734 | .408127            | .521644            | .277268                                 | .110776           |
| 4         | • 009200 | 067108  | .186938            | .078924            | .198774                                 | 085088            |
|           |          |         |                    |                    |   |                   |
| 5<br>6    | .005072  | 154424  | .277387            | .010770            | .155477                                 | 366439            |
| 6         | .011230  | 183127  | .279151            | .085033            | . 144051                                | 472261            |
| 7         | .003501  | 112365  | .139924            | .103889            | .031049                                 | 286286            |
| 8         | .014964  | 054385  | .077927            | .048867            | 043645                                  | 219150            |
| 9-11      | 000908   | 039010  | .086738            | .056777            | 034984                                  | 148494            |
|           |          | 105777  | 017/01             | 000000             | 001007                                  | 010015            |
| 12-14     | .004269  | .101675 | .017691            | .009535            | .006997                                 | 069063            |
| 15-21     | .013254  | 072829  | .049117            | 014841             | .047045                                 | 151188            |
| 22-30     | -018209  | 076985  | .054972            | .011964            | .036284                                 | 189945            |
|           |          |         |                    |                    |   |                   |

RUN NO. 82C 16M 11-02-62 0642-0743 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

| М        | U,V                  | U,W                | U.T               | V. W      | V, T               | W. T               |
|----------|----------------------|--------------------|-------------------|-----------|--------------------|--------------------|
|          | 0.28176              | 0.89748            | 0.04010           | 0 02000   |                    |                    |
|          | 10E-01               | 10E-02             | 0.94910<br>10E-02 | 0.83982   | 0.88813            | 0.28289            |
|          |                      |                    | 100 02            | 10E-02    | 10E-02             | 10E-02             |
| 1        | .009335              | .035942            | .058029           | 071685    | .040793            | 01/2/7             |
| 2        | • 052196             | •091545            | .059329           | 052925    | .069445            | .014347            |
| 3        | • 055625             | .035655            | .098174           | .012336   | .043397            | •023332            |
| 4        | .023735              | .015221            | .098260           | 015015    | .002293            | -061710            |
| 5        | .041187              | 001005             | .071399           | .002159   | .000355            | •058394<br>•076075 |
|          |                      |                    |                   |           |                    | .076075            |
| 6<br>7   | .012294              | .055863            | .083684           | 006338    | 015661             | .010106            |
| 8        | .019405              | .071245            | -114918           | .050085   | 072020             | 035266             |
| 9        | •012367              | • 070962           | .034333           | .068795   | 014270             | .041984            |
| 10       | • 036669             | .066045            | .024270           | .008099   | .042524            | .071715            |
|          | .032938              | .067015            | .013842           | .000016   | .015969            | .103293            |
| 11       | .028292              | 024002             |                   |           |                    |                    |
| 12       | 025278               | - 034893           | 015312            | • 046341  | .008290            | .074355            |
| 13       | 054956               | 019334             | .024686           | 004373    | .018354            | .062792            |
| 14       | 078495               | •003528            | 033621            | 004898    | .049840            | .056182            |
| 15       | 087363               | 001559             | 094761            | 001789    | .033373            | 014284             |
|          | •001303              | .003680            | 066231            | .004308   | .035349            | 026633             |
| 16       | 102418               | 030757             | - 000/71          |           |                    |                    |
| 17       | 095251               | 012586             | 088671            | 019075    | .070668            | .058663            |
| 18       | 028759               | .021929            | 131784<br>121761  | - 004238  | .046491            | .018368            |
| 19       | 020118               | .019717            | 102408            | .003003   | .011543            | 037623             |
| 20       | 000332               | .005138            | 098400            | .002270   | 038816             | 044978             |
|          |                      |                    | *0 70400          | 022749    | 053033             | 013522             |
| 21       | .038028              | 011761             | 083146            | .014637   | - 043141           |                    |
| 22       | 006521               | .026135            | 036265            | 010050    | 042141             | 008490             |
| 23       | 040877               | .052985            | 024718            | 030808    | 026310             | 052888             |
| 24       | 012844               | - 001 736          | 019199            | 042711    | 028616             | 017124             |
| 25       | 005343               | 024660             | 022136            | 035782    | .008616<br>.016452 | .031395            |
|          |                      |                    |                   |           | *010432            | 001908             |
| 26       | .007485              | .005729            | 067630            | .004331   | 013982             | - 051500           |
| 27       | .023532              | .023699            | 063131            | .021529   | 037383             | 051590<br>063732   |
| 28       | .062078              | .048252            | 026147            | .034638   | 022592             | 026979             |
| 29<br>30 | .053806              | .038137            | 023044            | .067731   | 063293             | 020603             |
| 30       | .071368              | -006554            | 037848            | -029258   | 090976             | 005802             |
| QUADRATI | JRE SPECTRUM         |                    |                   |           |                    |                    |
| K        | U,V                  | 44 44              |                   |           |                    |                    |
|          | 0,,                  | U.W                | U, T              | V • W     | V - T              | W, T               |
|          | 10E-03               | 10E-03             | 10E-03            | 10E-03    | 10E-03             | 10E-04             |
| 1        | - 242704             | *****              |                   |           |                    | 101-04             |
| ž        | 262794               | • 249238           | 027314            | - 059409  | -109109            | .935950            |
| 3        | • 392464<br>• 703592 | • 200470           | •353865           | . 054447  | .038285            | .725536            |
| 4        | .191977              | • 162849           | •415459           | .000523   | 054566             | .263725            |
| 5        | 175545               | .045131            | -148467           | 060537    | .010009            | 071709             |
| •        | *******              | 041406             | .063721           | 100852    | .141633            | .087431            |
| 6        | .156871              | 007998             | 005540            |           |                    | _                  |
| 7        | .419780              |                    | -085548           | 102244    | .122449            | .322957            |
| 8        | .157818              | .067080<br>.113037 | •022094           | 062941    | .098743            | .384960            |
| 9-11     | 031250               | • 096382           | 006340            | 045925    | .137414            | .253254            |
| 12-14    | .023701              | • 038839           | - 035616          | 026579    | 022960             | 285411             |
|          |                      | 4000007            | 004069            | 083477    | .016872            | 064236             |
| 15-21    | 087855               | 029691             | -029496           | 038462    | 01077              |                    |
| 22-30    | .022376              | 037005             | .009299           | .029559   | 012734             | •027606            |
|          |                      |                    | ,                 | • 02 7337 | •003751            | •065546            |

RUN NO. B2C 16M 11-02-62 0642-0743 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

| NORMAL | LZED | AUTOCOVARIANCE |
|--------|------|----------------|
| NORMAL | IZED | MITOCOANTAINCE |

| MUKHALILLO NO |                    |                  |   | T                  |
|---------------|--------------------|------------------|---|--------------------|
| M             | U                  | ٧                | W                                       | •                  |
| iii.          |                    |                  | 0.26750                                 | 0.29916            |
|               | 0.30111            | 0.26366          | 10E-02                                  | 10E-02             |
|               | 10E-01             | 10E-01           |   |                    |
|               |                    | 1.000000         | 1.000000                                | 1.000000           |
| 0             | 1.000000           | .619343          | .132302                                 | .504682            |
| 1             | .534183            | .543081          | 052300                                  | .250608            |
| 2             | .356210            | .401007          | .002690                                 | .167632            |
| 3             | .269815<br>.155810 | .325418          | 135229                                  | .024277            |
| 4             | .133010            |                  |   | 002240             |
| -             | .019757            | .202336          | .091101                                 | 092260             |
| 5             | .004916            | .079617          | 007132                                  | 072275<br>085593   |
| 6<br>7        | 078300             | .057364          | 058716                                  | 132158             |
| 8             | 063419             | 078370           | .042455                                 | 099493             |
| 9             | 079368             | 126604           | 086751                                  | •••                |
| •             |                    |                  | 094805                                  | 152752             |
| 10            | 126658             | 227413           | 040467                                  | 160444             |
| 11            | 177250             | 333128           | 054168                                  | 129365             |
| 12            | 163191             | 366818           | 181635                                  | 157796             |
| 13            | 179504             | 419864<br>375404 | 115042                                  | 136920             |
| 14            | 165268             | 375404           | • |                    |
|               |                    | 342801           | 084605                                  | 035417             |
| 15            | 154338             | 351443           | 059204                                  | 036866             |
| 16            | 107209             | 312622           | 090212                                  | 066986             |
| 17            | 005367             | 314841           | .022017                                 | 073794             |
| 18            | .062798<br>.061914 | 227365           | 050650                                  | 066968             |
| 19            | .001714            |                  |   | 007/53             |
| 20            | .093314            | 207484           | .057332                                 | 007452             |
| 20            | .038753            | 071087           | .140900                                 | .079705            |
| 21            | .027639            | 006077           | .072504                                 | .065871<br>.062106 |
| 22            | 051929             | .091412          | .104720                                 | .099381            |
| 23<br>24      | 104972             | .076093          | 028188                                  | .077301            |
| 47            |                    |                  | 020705                                  | 044319             |
| 25            | 089197             | .141607          | 028795<br>.075081                       | 089301             |
| 26            | 008470             | .098245          | .072259                                 | 025605             |
| 27            | 013749             | .150554          | .030001                                 | 061650             |
| 28            | 056100             | .095700          | .009823                                 | 093624             |
| 29            | 120319             | .093847          | •007015                                 |                    |
|               |                    | .077094          | .166066                                 | .004839            |
| 30            | 099509             | .071034          |   |                    |
|               |                    |                  |   |                    |
|               |                    |                  |   |                    |
| POWER SPECT   | RUM                |                  |   | -                  |
|               | U                  | ٧                | W                                       | Т                  |
| K             | Ü                  |                  |   |                    |
|               |                    |                  | 1.05 03                                 | 10E-03             |
|               | 10E-02             | 10E-02           | 10E-03                                  | 100 03             |
|               |                    |                  | .008626                                 | .046672            |
| 0             | .103803            | .064841          | .105736                                 | .314246            |
| ĭ             | .489120            | .642850          | .158119                                 | .354774            |
| 2             | .434233            | .662240          | 152045                                  | . 373259           |
| 3             | .420397            | .427881          | .071262                                 | .270697            |
| 4             | .244280            | .130162          | .0.2255                                 |                    |
|               |                    | .081700          | .081357                                 | .211688            |
| 5             | .140180            | .072849          | .122980                                 | .177263            |
| 6             | .172363            | .079463          | .120395                                 | .158332            |
| 7             | .141312            | .079594          | . 126994                                | .153655            |
| 8             | .079506            | .033152          | .136977                                 | .084224            |
| 9-11          | •06.00.0           |                  |   | 0/212/             |
|               | .070163            | .041144          | .108262                                 | .063126            |
| 12-14         | .072941            | .039335          | .106470                                 | .087889            |
| 15-21         | .061647            | .058920          | .130814                                 | . 054465           |
| 22-30         | .0010              |                  |   |                    |

RUN NO. 82C 11-02-62 0642-0743 EST 4 OM

# GROSS STATISTICS

| 1 CI<br>TRANSITIONA<br>LAND | WIND:<br>SIGMA<br>SIGMA | A 4.6 DEG                      | MIND DIR<br>Solar Ra<br>Net Radi | DIATION 0.14                |
|-----------------------------|-------------------------|--------------------------------|----------------------------------|-----------------------------|
|                             | WITH NO<br>RUNNING MEAN | WITH 301 POINT<br>RUNNING MEAN | WITH 61 POINT<br>RUNNING MEAN    | 301 PT RUN MEAN             |
| VARIANCES                   |                         |                                | KOMING HEAN                      | 10 PT BLOCK AVE             |
| Ü                           | 0.412505.00             |                                |                                  |                             |
| v                           | 0-41259E-00             | 0.44291E-01                    | 0.30415E-01                      |                             |
| ý.                          | 0.10550E-00             | 0-41048E-01                    | 0.363005 01                      | 0.28098E-01                 |
|                             | 0.12362E-01             | 0.11123E-01                    | 0.26209E-01                      | 0.26222E-01                 |
| T                           | 0.10633E-00             | 0.80808E-02                    | 0.10817E-01<br>0.56870E-02       | 0.37095E-02                 |
| E                           | 0.26522E-00             | 0.48247E-01                    | 0.33722E-01                      | 0.56216E-02                 |
| GUSTINESS RATIOS            | 3                       |                                |                                  |                             |
|                             | •                       |                                |                                  |                             |
| U                           | 0.15404                 | 0.05047                        |                                  |                             |
| ٧                           | 0.07789                 | 0.05047                        | 0.04182                          | 0.04020                     |
| W                           | 0.02666                 | 0.04859                        | 0.03882                          |                             |
|                             | 0.02000                 | 0.02529                        | 0.02494                          | 0.03883<br>0.01460          |
| COVARIANCES                 |                         |                                |                                  |                             |
|                             |                         |                                |                                  |                             |
| U,V                         |                         |                                |                                  |                             |
|                             | 0-28472E-02             | 0.14484E-01                    | 0 722755 00                      |                             |
|                             | -0.20194E-02            | -0.38635E-02                   | 0.72375E-02                      | 0.10946E-01                 |
| U.T                         | -0.13722E-00            | 0.73410E-02                    | -0.42211E-02                     | -0.15982E-02                |
| V 1 W -                     | -0.67682E-02            |                                | 0.52990E-02                      | 0-52153E-02                 |
| V, T                        | 0.48179E-01             | -0.37442E-02                   | -0.39269E-02                     | -0.17275E-02                |
| W.T -                       | 0.39924E-02             | 0.020/0E-02                    | 0.67210E-02                      | 0.112136-05                 |
|                             | 0.333746-05             | -0.21340E-02                   | -0.23966E-02                     | 0.53664E-02<br>-0.94315E-03 |
| L.F                         |                         |                                |                                  | 01743135-03                 |
| WE _                        | 0.13186E-03             | 0.51279E-03                    | -0.20200E-03                     |                             |
| WORMALIZED COVARI           | ANCES                   |                                |                                  |                             |
|                             |                         |                                |                                  |                             |
| U,V                         | 0.01365                 | 0.33970                        |                                  |                             |
| U,W                         | -0.02828                |                                | 0.25634                          | 0.40324                     |
| U,T                         | -0.65511                | -0.17407                       | -0.23271                         | -0.15663                    |
| V.W                         |                         | 0.38803                        | 0.40291                          |                             |
| V.T                         | -0.18741                | -0.17523                       | -0.23322                         | 0.41496                     |
| WeT                         | 0.45489                 | 0.45506                        |                                  | -0.17525                    |
| 771                         | -0.11012                | -0.22509                       | 0.55051                          | 0.44199                     |
|                             |                         | - ******                       | -0.30556                         | -0.20665                    |

RUN NO. 82C 40M 11-02-62 0642-0743 EST 81 POINT RUNNING MEAN, NO BLOCK AVERAGING

| M        | U.V                                     | U,W                                     | U.T                | V.W                | V,T                | W, T               |
|----------|---|---|--------------------|--------------------|--------------------|--------------------|
|          |   |   |                    |                    |                    |                    |
|          | 0.28234                                 | 0.18137                                 | 0.13152            | 0.16838            | 0.12210            | 0.78434            |
|          | 10E-01                                  | 10E-01                                  | 10E-01             | 10E-01             | 10E-01             | 10E-02             |
| 0        | . 256346                                | 232756                                  | .402558            | 233303             | • 550634           | 305728             |
| ī        | .227120                                 | 182868                                  | .367890            | 161511             | -485668            | 244678             |
| 2        | .162853                                 | 117346                                  | .302048            | 075562             | .373159            | 165112             |
| 3        | .110072                                 | 082104                                  | .237247            | 030793             | .275683            | 111053             |
| 4        | .084081                                 | 064461                                  | .187122            | 014890             | .200249            | 081091             |
|          | 044122                                  | 044003                                  | 142410             | 020412             | 140010             | 040401             |
| 5<br>6   | .066133<br>.041258                      | 046981<br>031092                        | .143619<br>.105944 | 020612<br>027389   | •149213<br>•116190 | 068491<br>056324   |
| 7        | .014916                                 | 015651                                  | .075593            | 037537             | .093203            | 050338             |
| 8        | .003172                                 | .002567                                 | .045219            | 040527             | .068986            | 029744             |
| 9        | 004194                                  | .017673                                 | .015844            | 041586             | .039623            | 003768             |
|          |   |   |                    |                    |                    |                    |
| 10       | 010036                                  | .024333                                 | 008030             | 030480             | .009487            | .014256            |
| 11       | 021182                                  | .027363                                 | 022216             | 003623             | 025800             | .027645            |
| 12<br>13 | 030218                                  | .031426                                 | 034551             | .012797            | 049407             | .039321            |
| 14       | 038997<br>041747                        | .047217<br>.063370                      | 048587<br>063804   | .018574<br>.023102 | 069609<br>091034   | .048126<br>.053682 |
| • •      |   | .0055.0                                 | -1003004           | .023102            | .071034            | .033002            |
| 15       | 038473                                  | .069747                                 | 074895             | .045639            | 112314             | .066201            |
| 16       | 035990                                  | .072141                                 | 082022             | .060173            | 126464             | .077500            |
| 17       | 036444                                  | .070888                                 | 089033             | .061265            | 136529             | .081372            |
| 18       | 039497                                  | .069274                                 | 085806             | .060609            | 137387             | .079906            |
| 19       | 037847                                  | .064219                                 | 085600             | .052071            | 133268             | .071762            |
| 20       | 036627                                  | .065994                                 | 088124             | .048521            | 131447             | .067663            |
| 21       | 036724                                  | .061997                                 | 090766             | .057192            | 135738             | .074895            |
| 22       | 036495                                  | .056543                                 | 093154             | .065000            | 142766             | .078848            |
| 23       | 042883                                  | .058043                                 | 100076             | .061670            | 143917             | .076754            |
| 24       | 055074                                  | .054415                                 | 105576             | .046980            | 137865             | .072429            |
|          |   |   |                    |                    |                    |                    |
| 25       | 066551                                  | .045251                                 | 110926             | .038939            | 135165             | .055087            |
| 26<br>27 | 069660<br>067014                        | .033735<br>.026020                      | 110585<br>107186   | .023647<br>.011943 | 130213<br>117637   | .037742            |
| 28       | 058248                                  | .031872                                 | 103957             | .011954            | 102726             | .037090            |
| 29       | 039951                                  | .030273                                 | 093837             | .009120            | 089322             | .042623            |
|          |   |   |                    |                    |                    |                    |
| 30       | 020430                                  | .014050                                 | 076569             | .009616            | 078716             | .042911            |
| 31       | 007138                                  | 006996                                  | 055846             | .001793            | 063914             | .030855            |
| 32<br>33 | 000897<br>004174                        | 025491<br>036005                        | 042448<br>039080   | 005190<br>014727   | 040442<br>017389   | .019140<br>.004788 |
| 34       | 002592                                  | 038236                                  | 033997             | 019241             | .001435            | ~.007379           |
| - '      | *************************************** | *************************************** |                    | *******            |                    |                    |
| 35       | 004112                                  | 042008                                  | 027976             | 019397             | .019462            | 013269             |
| 36       | 006060                                  | 041722                                  | 022866             | 017050             | .026985            | 019308             |
| 37       | 000041                                  | 039103                                  | 018784             | 012132             | .026384            | 024240             |
| 38<br>39 | .003236<br>.008424                      | 027841<br>018317                        | 017650<br>017083   | 017280<br>016202   | .026482<br>.025801 | 032924<br>036411   |
| ,,,      | *000424                                 | 010311                                  | 017003             | - 1010202          | *023001            | 030411             |
| 40       | .014945                                 | 015450                                  | 008883             | 011902             | .031000            | 036755             |
| 41       | .016200                                 | 014548                                  | .007045            | 015101             | .037666            | 039791             |
| 42       | .009775                                 | 022201                                  | .012617            | 013871             | .037608            | 035299             |
| 43       | .004706                                 | 025587                                  | .012846            | 019133             | .039118            | 021823             |
| 44       | .001345                                 | 025634                                  | .007262            | 015672             | .039495            | 013345             |
| 45       | 005341                                  | 026321                                  | 000911             | 008112             | .036031            | 005362             |
| 46       | 009191                                  | 027536                                  | 000999             | .001847            | .026702            | .005042            |
| 47       | 013335                                  | 028473                                  | .003215            | .012039            | .018021            | .006422            |
| 48       | 021820                                  | 027932                                  | .003779            | .016408            | .009505            | .002620            |
| 49       | 026745                                  | 018920                                  | 000908             | .023245            | 002102             | .002325            |
| 50       | - 020530                                | 013201                                  | 008002             | .033665            | 013643             | .015770            |
| 50<br>51 | 029530<br>023999                        | 013201                                  | 015897             | .032585            | 018658             | .017770            |
| 52       | 023296                                  | 005487                                  | 014154             | .038390            | 021063             | .017552            |
| 53       | 022387                                  | 003943                                  | 003926             | .043861            | 027687             | .020318            |
| 54       | 023282                                  | 004969                                  | .005229            | .044582            | 039636             | .020552            |
|          |   |   |                    |                    |                    |                    |
| 55       | 019665                                  | 004029                                  | .020118            | .034872            | 040726             | .012111            |
| 56       | 018235                                  | .001691                                 | .031153            | .025424<br>.021110 | 027953<br>011217   | .001745<br>003832  |
| 57<br>58 | 010154<br>001254                        | .004255<br>.011077                      | .039711<br>.045079 | .004506            | .001402            | 006306             |
| 59       | .009936                                 | .019961                                 | .050040            | 014272             | .005246            | .001687            |
|          |   |   |                    |                    |                    |                    |
| 60       | .020712                                 | .017345                                 | .048557            | 030714             | .003208            | .005162            |

RUN NO. 82C 40M 11-02-62 0642-0743 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| HOKIMETE | ED GONDHAIGHE      | COTANIANOL        |                    |                   |                    |                    |
|----------|--------------------|-------------------|--------------------|-------------------|--------------------|--------------------|
| M        | U, V               | U,W               | U.T                | V, W              | V.T                | W, T               |
|          | 0.28234<br>10E-01  | 0.18137<br>10E-01 | 0.13152<br>10E-01  | 0.16838<br>10E-01 | 0.12210<br>10E-01  | 0.78434<br>10E-02  |
|          |                    |                   | 200                |                   |                    |                    |
| 1        | .045749            | 025269            | .035484            | 013690            | 006057             | .036813            |
| 2        | .055276            | 032629            | .055047            | 036458            | 002618             | .065228            |
| 3        | .057452            | 037251            | .071546            | 046382            | .005482            | .073928            |
| 4        | .069381            | 043649            | .084517            | 060998            | .014971            | .077774            |
| 5        | .076799            | 052398            | .091198            | 066079            | .026404            | .082142            |
| 6        | .073831            | 047385            | .096367            | 070944            | .040050            | .075980            |
| 7        | .065687            | 052485            | -104908            | 075303            | .054283            | .070839            |
| 8        | . 057653           | 049327            | .109043            | 078855            | .065137            | .060503            |
| 9<br>16  | .053573<br>.055115 | 042518<br>034583  | .105502<br>.102107 | 076123<br>073717  | .067910<br>.062332 | .050896<br>.048368 |
| 11       | .051775            | 029046            | .099129            | 076341            | .062001            | .043096            |
| 12       | .045547            | 027106            | .095742            | 072934            | .061783            | .032181            |
| 13       | .040215            | 017002            | .088079            | 063222            | .059548            | .020277            |
| 14       | .040026            | 003147            | .076168            | 037617            | .051221            | .006686            |
| 15       | .043179            | 000678            | .067430            | 024270            | .045640            | 002900             |
| 16       | .046986            | 004630            | .063873            | 015654            | .039416            | 010963             |
| 17       | .048139            | 000475            | .059199            | 002013            | .033081            | 018977             |
| 18       | .040883            | .007764           | .052048            | .007507           | .026362            | 024035             |
| 19       | .029748            | .005631           | .041711            | .005355           | .011910            | 018234             |
| 20       | .019763            | 002240            | .028375            | .002272           | 005282             | 006264             |
| 21       | .014637            | 007786            | .011931            | .000827           | 015298             | .006329            |
| 22       | .009794            | 001476            | 000090             | .005409           | 023125             | .016550            |
| 23       | .013262            | 007145            | 006186             | .013620           | 032340             | .023808            |
| 24       | .016013            | 005341            | 005970             | .011916           | 037869             | .025544            |
| 25       | .015878            | 010123            | .000678            | .003701           | 030618             | .030052            |
| 26       | .001453            | 013945            | .002230            | 013590            | 019565             | .033547            |
| 27       | 016775             | 013649            | 003032             | 026560            | 017979             | .040833            |
| 28       | 028932             | 018598            | 014904             | 034271            | 018757             | .051180            |
| 29       | 035902             | 022877            | 028518             | 035690            | 029251             | .055138            |
| 30       | 037301             | 021929            | 037144             | 028523            | 041362             | .049126            |
| 31       | 038871             | 032744            | 040329             | 024823            | 049435             | .041408            |
| 32       | 033792             | 044172            | 045718             | 022602            | 055124             | .042206            |
| 33       | 029203             | 033207            | 053033             | 013270            | 056274             | .034274            |
| 34       | 026267             | 018545            | 050841             | • 000702          | 050824             | .018203            |
| 35       | 024148             | 002045            | 042689             | .004031           | 039217             | 003181             |
| 36       | 021699             | .005158           | 028574             | .008281           | 032882             | 021746             |
| 37       | 023737             | .004087           | 012798             | .017518           | 030923             | 029984             |
| 38       | 022229             | .008308           | .002485            | .027551           | 027807             | 036386             |
| 39       | 012378             | -024700           | .012748            | .038434           | 023494             | 034149             |
| 40       | .000945            | .031190           | .022519            | .036192           | 018965             | 032228             |
| 41       | .012761            | .028460           | .026956            | .031782           | 016648             | 025670             |
| 42       | .019134            | .026310           | .025182            | .028713           | 014447             | 017820             |
| 43       | .018395            | .023256           | .024977            | .022762           | 009279             | 010668             |
| 44       | .017603            | -023148           | .025711            | .010587           | 002729             | 003175             |
| 45       | .014503            | .014679           | .028704            | .001987           | .008223            | 009189             |
| 46       | .005112            | .005653           | .030789            | 009310            | .021773            | 020906             |
| 47       | .000284            | .011588           | .025009            | 011356            | .025620            | 019008             |
| 48       | .008810            | .013408           | .018143            | 001680            | .025083            | 016566             |
| 49       | .015873            | .013118           | .014396            | .004267           | .029485            | 019880             |
| 50       | .012521            | .008020           | .013302            | 001749            | .037061            | 019372             |
| 51       | .012523            | 004957            | .012078            | 011345            | .037271            | 019003             |
| 52       | .003119            | 015930            | .007304            | .001516           | .036547            | 023677             |
| 53       | 004377             | 011789            | .004976            | .001146           | .034586            | 029133             |
| 54       | .001979            | .006216           | .003315            | .005901           | .028951            | 030979             |
| 55       | .013266            | .013432           | 002661             | .009>06           | .023606            | 028338             |
| 56       | .014572            | .019680           | 007218             | .007948           | .020298            | 023648             |
| 57       | .010853            | .025562           | 008131             | .009819           | .019234            | 024680             |
| 58       | .009543            | .023251           | 010073             | .018643           | .016001            | 024863             |
| 59       | .009898            | .020497           | 014389             | .022444           | .010682            | 019461             |
| 60       | .006227            | .029117           | 019499             | .021754           | .010417            | 012263             |
|          |                    |                   |                    |                   |                    |                    |

NUM NO. 82C 40M 11-02-62 0642-0743 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

## NORMALIZED AUTOCOVARIANCE

| MONINETEED | AU I DED TAK I AIREE                    |                    |                    |                    |
|------------|---|--------------------|--------------------|--------------------|
| н          | U                                       | ٧                  | W                  | T                  |
|            |   |                    |                    |                    |
|            | 0.30413                                 | 0.26212            | 0.10816            | 0.56875            |
|            | 106-01                                  | 10E-01             | 105-01             | 10E-02             |
| _          |   |                    |                    | 1 000000           |
| 0          | 1.000000                                | 1.000000           | 1.000000           | 1.000000           |
| 1          | .793572                                 | .780622<br>.506461 | .620524<br>.319955 | .680105            |
| 2          | .558396<br>.408462                      | .313754            | .188043            | .529921            |
| 4          | .303814                                 | .194233            | .110484            | .412661            |
| ž          |   |                    |                    |                    |
| 5          | .223693                                 | .128604            | .073304            | .322323            |
| 6          | .146688                                 | .096850            | .050385            | .248896            |
| 7          | .069931                                 | .077908            | .029041            | .186838            |
| 8          | .012725                                 | .050530            | 010250<br>020781   | .126385            |
| 9          | 017389                                  | .021323            | 039781             | -069455            |
| 10         | 045259                                  | 009817             | 073444             | .012736            |
| ii         | 067946                                  | 056662             | 104991             | 036540             |
| 12         | 093002                                  | 093577             | 117765             | 074912             |
| 13         | 106088                                  | 111182             | 116025             | 109689             |
| 14         | 112014                                  | 116645             | 116878             | 150747             |
|            |   |                    |                    |                    |
| 15         | 132055                                  | 129749             | 131164             | 190365             |
| 16         | 162394                                  | 155481             | 139227             | 223135<br>246357   |
| 17         | 193961<br>213215                        | 167701<br>172716   | 145750<br>147181   | 259079             |
| 18<br>19   | 220307                                  | 173688             | 129336             | 266680             |
| .,         | • | 1113000            | 1127330            |                    |
| 20         | 209928                                  | 178522             | 102750             | 271745             |
| 21         | 203909                                  | 191740             | 098368             | 277394             |
| 22         | 195105                                  | 203823             | 116606             | 281091             |
| 23         | 182090                                  | 199954             | 133349             | 281471             |
| 24         | 164788                                  | 193138             | 116735             | 285887             |
| 25         | 147144                                  | 194096             | 097388             | 286427             |
| 25<br>26   | 146355                                  | 199256             | 074894             | 277907             |
| 27         | 152947                                  | 181611             | 066928             | 259510             |
| 28         | 152987                                  | 152224             | 084024             | 235474             |
| 29         | 132689                                  | 126801             | 096549             | 208657             |
|            |   |                    |                    |                    |
| 30         | 096245                                  | 110279             | 088997             | 179029             |
| 31         | 056479                                  | 081844             | 063141             | 141027             |
| 32         | 043664<br>032712                        | 050861<br>014739   | 032130<br>001353   | 102442<br>067182   |
| 33<br>34   | 016820                                  | .019066            | .023553            | 034240             |
| ,,         | 101010                                  |                    |                    | *******            |
| 35         | 000839                                  | .047075            | .043643            | 006665             |
| 36         | .014709                                 | .059328            | .043975            | .013234            |
| 37         | .023656                                 | .061406            | .040341            | .029029            |
| 38         | .027409                                 | .061721            | .056133<br>.039042 | .045613            |
| 39         | -029114                                 | .053803            | . 039042           | .066507            |
| 40         | .042345                                 | .058620            | .020851            | .085520            |
| 41         | .056133                                 | .070664            | .026173            | .094076            |
| 42         | .052268                                 | .073530            | .043221            | .088492            |
| 43         | .037838                                 | .073577            | .048649            | .082647            |
| 44         | .D24012                                 | .072147            | .030977            | .080665            |
|            |   | 011220             | 02/25/             | 074.004            |
| 45         | -016806                                 | .066220            | .026756            | .074894            |
| 46         | .011306<br>.002553                      | .056072<br>.040161 | .017404<br>.023427 | .062507<br>.048272 |
| 47<br>48   | 001256                                  | .024689            | .047457            | .037734            |
| 49         | 001926                                  | .017412            | .044281            | .023724            |
|            |   |                    |                    |                    |
| 50         | 002823                                  | .024706            | .038193            | .005531            |
| 51         | 010360                                  | .032074            | .041938            | 004760             |
| 52         | 021027                                  | .029577            | .029993            | 006473             |
| 53         | 019969                                  | .013970            | .022337<br>.005135 | 008782<br>011276   |
| 54         | 014706                                  | 010124             | • 003133           | 011210             |
| 55         | 015703                                  | 023674             | 003956             | 007349             |
| 56         | 016274                                  | 018049             | .004753            | .001002            |
| 57         | 006194                                  | 019371             | 004483             | .008252            |
| 58         | -004162                                 | 026866             | 019959             | .012313            |
| 59         | «D25644                                 | 033202             | 060329             | .011549            |
|            |   | 627665             | 075744             | 002553             |
| 60         | .045186                                 | 027002             | 075746             | .002552            |
|            |   |                    |                    |                    |

RUN NO. 82C 40M 11-02-62 0642-0743 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| CO | € | D | c | r | TO | 114 |
|----|---|---|---|---|----|-----|

| K         | U <b>,</b> V       | U,W              | U,T                | V, W             | V.T                | W.T              |
|-----------|--------------------|------------------|--------------------|------------------|--------------------|------------------|
|           | 10E-92             | 10E-03           | 10E-03             | 10E-03           | 10E-02             | 10E-03           |
| 0         | .009744            | 000870           | .084796            | 028674           | .010192            | 016652           |
| ĭ         | .083486            | 157948           | .814359            | 270112           | .083278            | 199631           |
| 2         | .099733            | 464790           | .977843            | 393653           | .108530            | 313929           |
| 3         | .108719            | 743342           | .957112            | 524117           | .121280            | 395974           |
| 4         | .074688            | 549203           | .601276            | 335181           | .075718            | 266422           |
| 5         | .049473            | 265255           | .385848            | 078330           | .040201            | 140737<br>116256 |
| 6<br>7-8  | .053596<br>.039659 | 192840<br>170494 | .340779<br>.228518 | 017094<br>065221 | .034632<br>.025345 | 071455           |
| 9-11      | .019782            | 130293           | .123178            | 143829           | .019860            | 064870           |
| 12-15     | .014832            | 080208           | .069322            | 167301           | .014589            | 059095           |
| 16-20     | .008726            | 073434           | .049150            | 110679           | .008146            | 049925           |
| 21-27     | .008227            | 050570           | .017549            | 065985           | .003103            | 021215           |
| 28-36     | .000940            | 032620           | .009603            | 033326           | .001793            | 014032           |
| 37-47     | .000003            | 012497           | .002116            | 019247           | .000871            | 006147           |
| 48-60     | 000089             | 007584           | .002393            | 012364           | •000354            | 004934           |
| QUADRATUR | RE SPECTRUM        |                  |                    |                  |                    |                  |
| K         | U,V                | U,W              | U, T               | V,W              | V.T                | W <sub>e</sub> T |
|           | 10E-03             | 10E-03           | 10E-03             | 10E-03           | 10E-03             | 10E-03           |
| 1         | .487260            | 241641           | .384059            | 338951           | .034129            | .155491          |
| ž         | .640591            | 201528           | .450124            | 348273           | .215114            | .120208          |
| 3         | .713706            | 144771           | .522462            | 335365           | .317886            | .074462          |
| 4         | .363671            | 199898           | .307520            | 320479           | .149350            | .116772          |
| 5         | .145652            | 266390           | .109756            | 314558           | .016234            | .189492          |
| 6         | .241491            | 141122           | .105798            | 125635           | 028745             | .139282          |
| 7-8       | .203292            | 051164           | .033010            | .044212          | 062849             | .029637          |
| 9-11      | .118065            | 006293           | .034314            | 007360           | 019354             | .025053          |
| 12-15     | .030586            | 014646           | .014355            | 024014           | 021001             | .020819          |
| 16-20     | .015910            | 012955           | .008063            | .008960          | 003223             | .004660          |
| 21-27     | .045413            | 009821           | .003024            | .002808          | 005907             | .006336          |
| 28-36     | .030750            | 010814           | .005357            | .001817          | 000389             | 000041           |
| 37-47     | .009757            | 000127           | .002828            | .005135          | 001488             | 002546           |
| 48-60     | .001233            | 006284           | .000980            | .005406          | .000087            | .000611          |
| POWER SPE | ECTRUM             |                  |                    |                  |                    |                  |
| K         | (                  | U                | V                  | I                | н                  | T                |
|           | 10E-               | -02              | 10E-02             | 10E-             | -02                | 10E-02           |
| 0         | 2.3                | 4 3 7 0          | 024272             | 00               | 2724               | 007030           |
| 0<br>1    |                    | 6370<br>0262     | .024372<br>.213605 |                  | 3724<br>8991       | .007839          |
|           |                    |                  |                    |                  | 2636               | .074314          |
| 2         |                    | 7736<br>2337     | .308096<br>.358941 |                  | 7142               | .100313          |
| 3         |                    |                  |                    |                  |                    |                  |
| 4         | • 3 0              | 9839             | .224963            | • 08.            | 2910               | .061346          |
| 5         |                    | 4390             | .131846            |                  | 0234               | .031936          |
| 6 55      |                    | 7551             | .136582            |                  | 4932               | .029357          |
| 7-8       |                    | 6635             | .117535            |                  | 0553               | .021197          |
| 9-11      |                    | 0845             | .090634            |                  | 3697               | .014948          |
| 12-15     | .05                | 0717             | .075988            | • 02             | 8977               | .009281          |
| 16-20     | .04                | 2578             | .047862            | • 02             | 5222               | .006332          |
| 21-27     |                    | 2157             | .026563            |                  | 7014               | .003254          |
| 28-36     | .01                | 7398             | .015261            | .01              | 3182               | .001911          |
| 37-47     | .01                | 2159             | .009147            | • 00             | 9760               | .001123          |
| 48-60     |                    | 6969             | .006205            |                  | 6625               | .000606          |

RUN NO. B2C 40M 11-02-62 0642-0743 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

| NONHALIZE | o cost cotton | COTANIANOC |                  |          |         |         |
|-----------|---------------|------------|------------------|----------|---------|---------|
| M         | U,V           | U,W        | U <sub>1</sub> T | V,W      | V.T     | W,T     |
|           | 0.27149       | 0.10207    | 0.12575          | 0.98539  | 0.12140 | 0.45642 |
|           | 10E-01        | 10E-01     | 10E-01           | 10E-02   | 10E-01  | 10E-02  |
|           | .403161       | 156584     | .414733          | 175314   | .442020 | 206643  |
| 0         | .272613       | 043855     | .203910          | 111532   | .208470 | 053934  |
| 2         | .198625       | .047860    | .047902          | 021801   | .029547 | .082661 |
| 3         | .130193       | 021043     | 024745           | 033816   | 060879  | .087910 |
| 4         | .086853       | 019188     | 054244           | .052006  | 140807  | .093643 |
| 5         | .062633       | 022505     | 031030           | .024453  | 157736  | .046091 |
| 6         | .047156       | .017771    | 013514           | 001537   | 150595  | .012837 |
| 7         | .013714       | .016960    | 049785           | 004760   | 164507  | .018965 |
| 8         | 013544        | .058835    | 052485           | .009867  | 089163  | .010200 |
| 9         | 038518        | .037181    | 030728           | .000601  | .011093 | 060071  |
| 10        | 031127        | .002698    | .054340          | 026413   | .081186 | 101199  |
| ii        | 092286        | .060621    | .069157          | .011175  | .075207 | 089086  |
| 12        | 169587        | .011511    | .004735          | -025648  | .048950 | 051065  |
| 13        | 192928        | 003288     | 039014           | .034141  | 009688  | 013766  |
| 14        | 224670        | .016331    | 081846           | .068951  | 060042  | .046269 |
| 15        | 226803        | .030433    | 072956           | .084033  | 042145  | .063982 |
| 15        | 181812        | 030029     | 027819           | .062204  | 025287  | 010064  |
| 16        | 104390        | 051697     | .016841          | .073917  | .013168 | 017485  |
| 17        | 096653        | .021134    | .006531          | .021550  | .021001 | .013756 |
| 18<br>19  | 053399        | .046588    | .042304          | .008986  | .078822 | 017193  |
| 20        | .004649       | .001478    | .085409          | .003632  | .055854 | 044497  |
| 21        | .024899       | .027122    | .100820          | 050513   | .087023 | 011640  |
| 22        | .020965       | .027938    | .079747          | 024775   | .045538 | 018308  |
| 23        | 009689        | .020085    | .033384          | . 006095 | .005208 | .037532 |
| 24        | 027155        | .011650    | .015410          | .004028  | 013381  | .021624 |
| 25        | 020326        | 023854     | .022244          | 000433   | .002020 | .017111 |
| 26        | .001115       | 027634     | .023661          | 020604   | 010214  | .017954 |
| 27        | 010128        | 003621     | 006352           | .000325  | 012898  | .034933 |
| 28        | .008336       | .009342    | 012692           | .011030  | 037061  | .019979 |
| 29        | .001975       | 057127     | 039009           | 038664   | 022020  | 044402  |
| 30        | .027926       | 044967     | 042992           | 088734   | .029849 | 065105  |
| COSPECTAL | JM            |            |                  |          |         |         |
| ĸ         | U• V          | U.W        | U,T              | V,W      | V,T     | W,T     |
|           | 10E-02        | 10E-03     | 10E-03           | 106-03   | 10E-03  | 10E-03  |
| 0         | .020850       | .016292    | .121043          | 005989   | 032511  | 001423  |
| ĭ         | . 252891      | 048585     | .360772          | 195266   | 116119  | .026940 |
| ž         | .270863       | 115425     | .344374          | 240464   | .100849 | .050573 |
| 3         | .170918       | 148748     | .426466          | 146874   | .397364 | .047571 |
| 4         | .025281       | 137341     | .324732          | 047465   | .576714 | 005123  |
| 5         | .032087       | 042712     | .464222          | 160053   | .796329 | 099852  |
| 6         | .085069       | .013553    | .580726          | 240245   | .862957 | 162071  |
| ř         | .061631       | 025133     | .351276          | 151406   | .505437 | 110767  |
| 8         | .024974       | 027581     | .164325          | 093750   | .163698 | 043410  |
| 9-11      | .027949       | 085772     | .321604          | 086504   | .212631 | 086243  |
| 12-14     | .017950       | 126995     | .160003          | 021293   | .200052 | 060424  |
| 15-21     | .011423       | 092478     | -106604          | 050851   | .123179 | 036428  |
| 22-30     | .017096       | 016893     | .098725          | .000679  | .095351 | 016027  |

RUN NO. 82C 40M 11-02-62 0642-0743 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

| M        | U.V             | U,W                                     | U, T                                    | ٧,٧       | V.T     | WeT      |
|----------|-----------------|---|---|-----------|---------|----------|
|          | 0.27149         | 0.10207                                 | 0.12575                                 | 0.98539   | 0.12140 | 0.45642  |
|          | 10E-01          | 10E-01                                  | 10E-01                                  | 10E-02    | 10E-01  | 10E-02   |
|          | 106-01          | 100-01                                  | 105-01                                  | 100-02    | 105-01  | 105-05   |
| 1        | .078067         | 062088                                  | .100221                                 | 180063    | 003329  | .148123  |
| 2        | .093930         | 061121                                  | .089859                                 | 119164    | 059854  | .064074  |
| 3        | .085684         |   |   |           |         |          |
|          |                 | 114184                                  | .067157                                 | 167591    | 110526  | -094722  |
| •        | .081584         | 008123                                  | .025373                                 | 120182    | 109509  | .047604  |
| 5        | .086428         | .006196                                 | 026987                                  | 069706    | 105294  | 025783   |
| 6        | .101146         | .032211                                 | 055900                                  | 032337    | 121340  | 064837   |
| 7        | .068975         | .054373                                 | 089223                                  | .006390   | 139033  | 084247   |
| 8        | .065775         | 030359                                  | 101950                                  | .010849   | 144416  | 070869   |
| 9        | .043174         | 015581                                  | 098360                                  | .051587   | 084055  | 076764   |
| 1ó       | .031323         | .012347                                 | 067509                                  | .032359   | 042350  | 052733   |
| 10       | .031323         | .012347                                 | -1001209                                | •032337   | 042330  | 072133   |
| 11       | .031659         | 041111                                  | 026543                                  | .023956   | 033906  | 023412   |
| 12       | .060679         | 039889                                  | .015102                                 | 025814    | 027366  | .001789  |
| 13       | .059054         | 035147                                  | 009434                                  | 033637    | 041441  | .035231  |
| 14       | . 038699        | 018475                                  | 010096                                  | .005672   | 021455  | .069992  |
| 15       | 031248          | 051482                                  | .016944                                 | 016382    | .026233 | .049481  |
|          | 031240          | -1071402                                | 1010744                                 | 010302    | .020233 | .049461  |
| 16       | 040925          | .054979                                 | .003507                                 | .047283   | .035152 | 009298   |
| 17       | 105448          | .080011                                 | 015611                                  | .029929   | .073253 | 021469   |
| 18       | 162768          | .136939                                 | 066389                                  | .092036   | .099408 | 044210   |
| 19       | 119427          | .080359                                 | 043973                                  | .081394   | .107107 | .000790  |
| 20       |                 |   |   |           |         |          |
| 20       | 123090          | .018539                                 | 024186                                  | 003995    | .154719 | .042977  |
| 21       | 132740          | 021763                                  | 023908                                  | 056113    | .146181 | .067710  |
| 22       | 090145          | 031175                                  | 011161                                  | 098387    | .114606 | .057952  |
| 23       | .002685         | 027904                                  | .026727                                 | 063607    | .076277 | .015342  |
| 24       | .038647         | 039643                                  | .019873                                 | 047592    | .049720 | .014438  |
| 25       | .039919         | 040980                                  | .056858                                 | 049372    | .024421 | 018101   |
|          | ********        | *************************************** | *************************************** | ********* |         |          |
| 26       | .048837         | 009808                                  | .067320                                 | .005201   | 002366  | 048617   |
| 27       | .043306         | 039184                                  | .000175                                 | 003799    | 035714  | .001489  |
| 28       | .025513         | .058139                                 | 027576                                  | 000562    | 008558  | 053189   |
| 29       | .047178         | .002028                                 | 007868                                  | .007653   | 031314  | 055985   |
| 30       | .014513         | .022867                                 | 032223                                  | .090606   | 053294  | 107259   |
|          | <b>V</b> 51.712 | 002200.                                 | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, |           | 7033271 | V101237  |
| QUADRATU | RE SPECTRUM     |   |   |           |         |          |
| K        | U, V            | U,W                                     | U.T                                     | V.W       | V.T     | W, T     |
|          | 10E-02          | 10E-03                                  | 10E-03                                  | 10E-03    | 10E-03  | 10E-03   |
| 1        | .061463         | 023594                                  | 355032                                  | 106003    | 436478  | 037867   |
| ž        | .123675         | 104370                                  | 185657                                  | 186621    | 714364  | 051809   |
| 3        | .092027         | 083053                                  | 017200                                  | 327439    | 501366  | 011418   |
| 4        | .012178         | .024302                                 | .165473                                 | 314225    | 106291  | .073077  |
| 5        |                 |   |   |           |         |          |
| ,        | .044400         | 136625                                  | .397214                                 | 363747    | 092547  | -144408  |
| 6        | .049957         | 293988                                  | .408285                                 | 396554    | .008420 | .169016  |
| 7        | .002580         | 156111                                  | .225487                                 | 174398    | .098502 | .090160  |
| 8        | 001849          | 094192                                  | .130974                                 | 067375    | .025669 | . 034865 |
| 9-11     | .020533         | 073800                                  | .075910                                 | 099682    | 041120  | .043019  |
| 12-14    | .010162         | .038153                                 | .067031                                 | 042309    | .096285 | .016807  |
|          |                 |   |   | ,         |         | 101001   |
| 15-21    | .003069         | .017456                                 | .041086                                 | 086077    | .033184 | .039310  |
| 22-3C    | .000754         | 086400                                  | .017187                                 | 076097    | 002605  | .033035  |
|          |                 |   |   |           |         |          |

RUN NO. 82C 40M 11-02-62 0642-0743 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

## NORMALIZED AUTOCOVARIANCE

| М            | U               | ٧        | W                  | T                 |
|--------------|-----------------|----------|--------------------|-------------------|
|              | 0.28121         | 0.26211  | 0 37045            | 0.54005           |
|              | 10E-01          | 10E-01   | 0.37045<br>10E-02  | 0.56233<br>10E-02 |
| 0            | 1.000000        | 1.000000 | 1.000000           | 1 000000          |
| 1            | -513398         | .621900  | •223558            | 1.000000          |
| 2            | .274275         | .421912  | .017727            | .564330           |
| 3            | .175246         | .311229  | 002623             | .184577           |
| 4            | -131068         | -210875  | 135083             | .001949<br>077673 |
| 5            | 02/272          |          |                    | 101.1013          |
| 6            | .036773         | .085979  | 012117             | 121624            |
| 7            | •029779         | 015606   | 123194             | 145410            |
| 8            | 035290          | 094740   | 065108             | 220128            |
| 9            | 073656          | 087972   | 170719             | 159526            |
| ,            | 039763          | 105360   | 051368             | 077158            |
| 10           | .034585         | 134926   | • 040431           | 000839            |
| 11           | .016148         | 183631   | 039669             | 001311            |
| 12           | 066141          | 202585   | .041077            | 069729            |
| 13           | 047167          | 288029   | 195892             | 111413            |
| 14           | 100570          | 386400   | 137570             | 165209            |
| 15           | 095911          | 376007   | 124222             |                   |
| 16           | 115945          | 370739   | 124233             | 152397            |
| 17           | 094185          | 294966   | 063283             | 049280            |
| 18           | 159198          | 228591   | .025505            | .036072           |
| 19           | 129973          | 133644   | 118075             | .043873           |
|              | <b>41</b> 27773 |          | .067398            | .086499           |
| 20           | 062376          | 077290   | .123491            | .075414           |
| 21           | 026048          | .009938  | .190967            | .069865           |
| 22           | 020886          | 052058   | .103480            | .026798           |
| 23           | 055572          | .021739  | 066237             | 019019            |
| 24           | 068063          | .043041  | .001187            | 014123            |
| 25           | 050973          | .064218  | 104061             | 201711            |
| 26           | 019635          | .078635  |                    | .006761           |
| 27           | 067477          | .104399  | .019193            | 020613            |
| 28           | 053729          | .054961  | 052202<br>.009276  | 071527            |
| 29           | 110941          | .030127  | • 050056           | 094962<br>085275  |
| 30           | 086708          | .066434  | - 043010           |                   |
|              |                 | *******  | 063810             | 062759            |
| POWER SPECTR | UM              |          |                    |                   |
| K            | υ               | V        | 1.0                | _                 |
|              | · ·             | •        | Ж                  | r                 |
|              | 10E-02          | 10E-02   | 10E-03             | 10E-03            |
| 0            | •107936         | .047074  | 006370             | 0/050-            |
| 1            | •488553         | •505346  | •006370<br>•123264 | .060588           |
| 2            | •339297         | .542639  |                    | •388020           |
| 2<br>3       | •250038         | .375465  | •211756            | .491241           |
| 4            | .203370         | .156150  | -258108            | .629112           |
|              | 0203310         | *170170  | .189117            | •544840           |
| 5            | -206781         | .172597  | . 225327           | .527295           |
| 6            | .168393         | .179062  | .282373            | .574543           |
| 7            | -107918         | .090222  | • 183204           | •410900           |
| 8            | •085209         | .038047  | .116258            | .191401           |
| 9-11         | .094499         | .054049  | .172155            | -241211           |
| 12-14        | .082678         | .060875  | .134497            | 20057             |
| 15-21        | .066704         | .046869  |                    | .200576           |
| 22-30        | .057230         | .041925  | .135188            | .101379           |
|              |                 | •0414C3  | · 150907           | .075020           |

RUN NO. 82C 16M 11-02-62 0642-0743 EST RUN NO. 82C 40M 11-02-62 0642-0743 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

#### COHERENCE WITH QUADRATURE

| K           | U        | V       | W       | ľ       |
|-------------|----------|---------|---------|---------|
|             | 10E 00   | 10E 00  | 10E 00  | 10E 00  |
| 0           | .034695  | .107648 | .130830 | .102683 |
| ĭ           | .120789  | .250732 | .253021 | .108882 |
| 2           | .103711  | .201457 | .257188 | .149077 |
| 1<br>2<br>3 | .066754  | .151485 | .235178 | .142326 |
| 4           | .047689  | .045673 | .193933 | .136093 |
| 5           | .115387  | .109283 | .135260 | .103435 |
| 6           | .196511  | .207913 | .029070 | .156363 |
| 7-8         | .164046  | .095246 | .102781 | .184974 |
| 9-11        | .147112  | .099109 | .121921 | .182462 |
| 12-15       | .092811  | .092879 | .114123 | .068356 |
| 16-20       | .096637  | .158434 | .147417 | .094918 |
| 21-27       | .077223  | .148635 | .079550 | .141889 |
| 28-36       | .1:39437 | .094184 | .134390 | .113737 |
| 37-47       | .093868  | .081273 | .085808 | .077747 |
| 48-60       | .130445  | .103512 | .109040 | .174661 |

#### 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

#### COHERENCE WITH QUADRATURE

| К           | U       | V       | W        | T       |
|-------------|---------|---------|----------|---------|
|             | 10E 00  | 10E 00  | 10E 00   | 10E 00  |
| 0           | .789366 | .981831 | .054908  | .310117 |
|             | .643483 | .927654 | .459750  | .255133 |
| 2           | .519551 | .870599 | .494179  | .159681 |
| 1<br>2<br>3 | .452108 | .769656 | .445254  | .099779 |
| 4           | .318168 | .533623 | .266571  | .178047 |
| 5           | .312409 | .651273 | .162194  | .220865 |
|             | .370378 | .529143 | .045346  | .193746 |
| 6<br>7<br>8 | .184310 | .358556 | .078129  | -215001 |
| 8           | .255392 | .322136 | .181550  | .230538 |
| 9-11        | .215171 | .210294 | . 340405 | •340076 |
| 12-14       | .141869 | .319198 | .277166  | .354845 |
| 15-21       | .184911 | .391535 | .288062  | .373600 |
| 22-30       | .238423 | .305726 | .267658  | .217929 |

# RUN NO. 82D 16M 11-02-62 0800-0915 EST

## GROSS STATISTICS

| 5 CI               |                            |                              |                             |                            |
|--------------------|----------------------------|------------------------------|-----------------------------|----------------------------|
| TRANSITIONAL       | WIND S                     |                              | WIND DIR                    | ECTION 15 DEC              |
| WATERILAND         | SIGMA<br>SIGMA             | - DEG                        | SOLAR RA                    | DIATION 15 DEG             |
| _                  | JIONA                      | 4.0 DEG                      | NET RADI                    | ATION 0.21                 |
|                    |                            |                              |                             | ••••                       |
|                    | 100 500 000                |                              |                             |                            |
|                    | WITH NO<br>RUNNING MEAN    | WITH 301 POINT               | WITH 61 POINT               | 301 PT RUN MEAN            |
|                    | HEAR                       | RUNNING MEAN                 | RUNNING MEAN                | 10 PT BLOCK AVG            |
| VARIANCES          |                            |                              |                             |                            |
|                    |                            |                              |                             |                            |
| U                  | 0.32397E-00                |                              |                             |                            |
| ٧                  | 0.22478E-00                | 0.19120E-00                  | 0.14927E-00                 | 0.12967E-00                |
| W                  | 0.69506E-01                | 0.15857E-00<br>0.64837E-01   | 0.11269E-00                 | 0.10085E-00                |
| Ţ                  | 0.55455E-01                | 0.23580E-01                  | 0.62592E-01                 | 0.24056E-01                |
| N<br>RHO(W)        | 0.13537E 01                | 0.55253E 00                  | 0.14475E-01<br>0.29572E-00  | 0.17217E-01                |
| KNU(W)             | 0.47875E-01                | 0.19613E-01                  | 0.11387E-01                 | 0.41429E-00<br>0.14332E-01 |
| E                  | 0.30913E-00                | 0.207475.00                  |                             | 00143326-01                |
|                    |                            | 0.20747E-00                  | 0.16228E-00                 |                            |
| GUSTINESS RATIOS   |                            |                              |                             |                            |
| addituess KMIID2   |                            |                              |                             |                            |
|                    |                            |                              |                             |                            |
| U                  | 0.14230                    | 0.10932                      | 0                           |                            |
| V                  | 0.11853                    | 0.09955                      | 0.09659<br>0.08392          | 0.09002                    |
| W                  | 0.06591                    | 0.06366                      | 0.06255                     | 0.07940                    |
|                    |                            |                              | 0.00233                     | 0.03878                    |
| COVARIANCES        |                            |                              |                             |                            |
|                    |                            |                              |                             |                            |
| U, <b>V</b> -      | 0.177                      |                              |                             |                            |
|                    | 0-17564E-01<br>0-47709E-01 | 0.85249E-02                  | 0.76971E-02                 | 0.50168E-02                |
|                    | 0.72276E-01                | -0.36906E-01                 | -0.35431E-01                | -0.24074E-01               |
|                    | 0.96323E-02                |                              | -0.25480E-01                | -0.26625E-01               |
| V, T               | 0.30734E-01                | -0.11599E-02<br>-0.14819E-02 | -0.19441E-02                | -0.21560E-02               |
|                    | 0.25054E-01                | 0.18613E-01                  | -0.27372E-02<br>0.16763E-01 | -0.13227E-02               |
| U,N _              | 0 344045                   |                              | 01101035-01                 | 0.10146E-01                |
|                    | 0-36496E-00<br>0-72162E-01 | -0.12092E-00                 | -0.10384E-00                | -0.86941E-01               |
|                    | 0-15896E-00                | -0.25829E-01                 | -0.21417E-01                | -0.18922E-01               |
| V,RHO(W)           | 0.31288E-01                |                              | -0.68026E-02                | 0.20455E-01                |
| N.N                | 0-10577E-00                | 0.74729E-01                  | -0.15993E-02                | 0.30550E-02                |
|                    | 0-21664E-01                | 0.15467E-01                  | 0.67322E-01<br>0.13938E-01  | 0.38595E-01                |
|                    | -18150E-00                 | 0.74866E-01                  | 0.54035E-01                 | 0.80918E-02                |
| AL BALBA           | 0-39445E-01<br>0-25179E-00 | 0.16400E-01                  | 0.11374E-01                 | 0.50174E-01<br>0.11252E-01 |
|                    | 3114E-00                   | 0.10289E-00                  | 0.57630E-01                 | 0.76057E-01                |
| WE (               | -16251E-01                 | 0.12922E-01                  | 0 7E6005 00                 | •                          |
|                    |                            |                              | 0.75508E-02                 |                            |
| NORMALIZED COVARIA | NCES                       |                              |                             |                            |
|                    |                            |                              |                             |                            |
| 41 14              |                            |                              |                             |                            |
| U,V<br>U,W         | -0.06509                   | 0.04896                      | 0.05935                     | 0.04207                    |
| 4. <del>-</del>    | -0.31794<br>-0.53923       | -0.33147                     | -0.36655                    | 0.04387<br>-0.43105        |
| V, W               | 0.07706                    | -0.51427                     | -0.54815                    | -0.56349                   |
| V,T                | 0.27527                    | -0.01144<br>-0.02424         | -0.02315                    | -0.04377                   |
| W. T               | 0.40355                    | 0.47603                      | -0.06777                    | -0.03174                   |
| U,N .              | 0.5500                     |                              | 0.55691                     | 0.49852                    |
|                    | 0.55110                    | -0.37205                     | -0.49427                    | -0.27511                   |
| V,N                | 0.57943<br>0.28817         | -0.42178                     | -0.51947                    | -0.37511<br>-0.43892       |
| V.RHO(W)           | 0.30161                    | 0.06740                      | -0.03726                    | 0.10006                    |
| W.N                | 0.34484                    | 0.05304<br>0.39482           | -0.04464                    | 0.08035                    |
| W.RHO(W)           | 0.37556                    | 0.43373                      | 0.49483                     | 0.38660                    |
| T, N               | 0.66244                    | 0.65590                      | 0.52208<br>0.82588          | 0.43579                    |
|                    | 0.76553                    | 0.76260                      | 0.88589                     | 0.59408                    |
| mannu(W)           | 0.98908                    | 0.98843                      | 0.99312                     | 0.71628<br>0.98703         |
|                    |                            |                              |                             | V. 701U5                   |

RUN NO. 82D 16M 11-02-62 0800-0915 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| NUKHALIZED | COZECIKOM          | CUVARIANCE         |   |   |   |                    |
|------------|--------------------|--------------------|---|---|---|--------------------|
| M          | U,V                | U.W                | U, T                                    | V.W                                     | V,T                                     | W. T               |
|            |                    |                    |   |   |   |                    |
|            | 0.12967            | 0.96637            | 0.46475                                 | 0.83977                                 | 0.40386                                 | 0.30098            |
|            | 10E 00             | 10E-01             | 10E-01                                  | 10E-01                                  | 10E-01                                  | 106-01             |
| 0          | .059193            | 366555             | 547945                                  | 023146                                  | 067583                                  | .556894            |
| ĭ          | .061062            | 343282             | 511660                                  | 041266                                  | 074180                                  | .460087            |
| 2          | .069024            | 294396             | 449477                                  | 059103                                  | 080979                                  | .318687            |
| 3          | .071047            | 239780             | 387981                                  | 061376                                  | 081431                                  | .223995            |
| 4          | .059023            | 188546             | 333739                                  | 057232                                  | 076184                                  | .159546            |
|            |                    |                    |   |   |   | 110040             |
| 5          | .044375            | 149129             | 276073                                  | 046501                                  | 068978                                  | .118968            |
| 6          | .030671            | 121309             | 217137                                  | 024817                                  | 047840                                  | .101829<br>.076253 |
| 7          | .021075            | 090987             | 156608                                  | 003517<br>.009274                       | 025625<br>012789                        | .027004            |
| 8          | .011232<br>001455  | 056790<br>024304   | 098349<br>044527                        | .020481                                 | 003242                                  | 022430             |
| 7          | 001433             | 024304             |   | .020401                                 | *************************************** |                    |
| 10         | 012334             | .006577            | .003775                                 | .027977                                 | .000181                                 | 062505             |
| 11         | 012459             | .037340            | .049873                                 | .031419                                 | .001255                                 | 086737             |
| 12         | 004959             | .066699            | .079604                                 | .032363                                 | 003258                                  | 104010             |
| 13         | 009449             | .100079            | .101512                                 | .030876                                 | .000682                                 | 118579             |
| 14         | 018351             | .126506            | .125599                                 | .023093                                 | .014707                                 | 122011             |
|            |                    |                    | . 120.44                                |   | 021270                                  | 119275             |
| 15         | 030909             | -142761            | .148625                                 | .011872                                 | .031378                                 | 117345             |
| 16         | 039031             | .148253            | .171395                                 | .001073<br>011741                       | .046903<br>.053277                      | 117135             |
| 17         | 042837             | .152782<br>.147990 | .187975<br>.201242                      | 019141                                  | .049171                                 | 120557             |
| 18<br>19   | 036386<br>028474   | .138301            | .206785                                 | 018086                                  | .041378                                 | 121681             |
| .,         | 0204.4             |                    | • | *************************************** |   |                    |
| 20         | 020866             | .136297            | .213007                                 | 016567                                  | .028239                                 | 130611             |
| 21         | 011228             | .138509            | .215447                                 | 011537                                  | .021693                                 | 134212             |
| 22         | 003425             | .138006            | .213413                                 | 002036                                  | .021765                                 | 133869             |
| 23         | .000426            | .133960            | .207983                                 | .008000                                 | .021907                                 | 128987             |
| 24         | .001958            | .135756            | .211733                                 | .012465                                 | .013970                                 | 115535             |
|            |                    |                    | *****                                   | 012242                                  | 003005                                  | - 104015           |
| 25         | .004881            | .129327            | .209221                                 | .012262                                 | .002805                                 | 104015<br>096956   |
| 26         | .009933            | -117906            | .201369                                 | .015013<br>.018220                      | 006711<br>013126                        | 095031             |
| 27         | .016717            | .104233<br>.091853 | .181984<br>.161624                      | .019671                                 | 012882                                  | 090653             |
| 28<br>29   | .023996<br>.023765 | .073447            | .143467                                 | .017455                                 | 006937                                  | 083360             |
| . ,        | . 023103           |                    |   | ••••                                    |   |                    |
| 30         | .011672            | .046748            | .119079                                 | .016472                                 | .003768                                 | 062264             |
| 31         | 003064             | .023012            | .091518                                 | .02322B                                 | .016559                                 | 039702             |
| 32         | 012917             | .006024            | .060771                                 | .037060                                 | .026407                                 | 023729             |
| 33         | 021777             | 002303             | .024678                                 | .043762                                 | .029258                                 | 013633             |
| 34         | 023595             | 015176             | 008153                                  | .038753                                 | .029607                                 | 001210             |
| 25         | 018269             | 032076             | 033600                                  | .035751                                 | .026143                                 | .006910            |
| 35<br>36   | 021760             | 047459             | 047981                                  | .035469                                 | .030291                                 | .013848            |
| 37         | 037604             | 057877             | 054844                                  | .034210                                 | .042846                                 | .034489            |
| 38         | 048267             | 057851             | 051926                                  | .029344                                 | .055617                                 | .048288            |
| 39         | 047356             | 053299             | 046285                                  | .016831                                 | .056216                                 | .049138            |
|            |                    |                    |   |   |   |                    |
| 40         | 044292             | 047035             | 043096                                  | .012517                                 | .048634                                 | .053749            |
| 41         | 033823             | 0-6957             | 044369                                  | .007500                                 | .033065                                 | .061976            |
| 42         | 023850             | 046321             | 045082                                  | 000222                                  | .020257                                 | .065269            |
| 43         | 025405             | 040665<br>038283   | 051338<br>053180                        | 007714<br>007185                        | .013382<br>.015936                      | .067365<br>.076174 |
| 44         | 033437             | 030203             | 033100                                  |   | .013730                                 | •010111            |
| 45         | 035669             | 047870             | 054603                                  | 007342                                  | .016040                                 | .090472            |
| 46         | 031272             | 058584             | 057975                                  | 022138                                  | .011032                                 | .086636            |
| 47         | 028841             | 062304             | 056344                                  | 037219                                  | .005184                                 | .055534            |
| 48         | 026224             | 059966             | 049405                                  | 038835                                  | 001900                                  | .032857            |
| 49         | 021437             | 051439             | 047448                                  | 036014                                  | 008098                                  | .032633            |
|            |                    |                    |   |   | 010101                                  | 040405             |
| 50         | 009399             | 038564             | 041759                                  | 030165                                  | 010454                                  | .040625            |
| 51         | .005967            | 030076             | 034703                                  | 020058                                  | 010410                                  | .045700<br>.042638 |
| 52         | .016725            | 026341             | 024592                                  | 012178<br>020098                        | 005797<br>006119                        | .028003            |
| 53<br>54   | .022487<br>.026300 | 014433<br>.006867  | 014155<br>003421                        | 020095                                  | 010650                                  | .010384            |
| 74         | .020300            | - 000001           | 1303421                                 | 702 1022                                | - 04 00 70                              | 202004             |
| 55         | .033104            | .025095            | .008046                                 | 023843                                  | 025155                                  | 006564             |
| 56         | .040261            | .032516            | .018537                                 | 031600                                  | 044219                                  | 021537             |
| 57         | .046744            | .036101            | .020664                                 | 045866                                  | 053974                                  | 026803             |
| 58         | .046702            | .037372            | .017449                                 | 052738                                  | 060135                                  | 021613             |
| 59         | .029637            | .038793            | .020341                                 | 041101                                  | 055766                                  | 016696             |
| 4.0        | 0.0000             | 035000             | 031000                                  | - 0311/0                                | _ 043404                                | - 030174           |
| 60         | .012280            | .035289            | .031099                                 | 021148                                  | 043406                                  | 020176             |

KUN NC. 82D 16M 11-02-62 0800-0915 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| M        | U.N      | U,RHO(W) | V.N                                     | V,RHO(W)                                | W, N            | W, RHO(W)    | T,N             | T,RHO(W)           | N.RHO(K) |
|----------|----------|----------|---|---|-----------------|--------------|-----------------|--------------------|----------|
| ••       | 0,       | 0,       | * | *************************************** | .,              | M, KIIO ( M) | • • • •         | .,                 | .,       |
|          | 0.21012  | 0.41221  | 0.18259                                 | 0.35821                                 | 0.13608         | 0.26696      | 0.65442         | 0.12839            | 0.58044  |
|          | 10E 00   | 10E-01   | 10E 00                                  | 10E-01                                  | 10E 00          | 10E-01       | 10E-01          | 10E-01             | 10E-01   |
|          | 101 00   | 100 01   | 100 00                                  | 100 01                                  | 100             |              | 100 01          | .00                | 101 01   |
| 0        | 493894   | 519375   | 036937                                  | 044558                                  | .494766         | .522034      | .825760         | .885844            | .993074  |
| ĭ        |          |          | 039967                                  |   | .400023         | .424192      | .669906         | .721600            | .804550  |
| ž        |          |          | 038818                                  |   | . 264483        | .283468      | .478231         | .519123            | .580563  |
| 3        |          |          | 031619                                  |   | .177331         | . 192173     | .354650         | .386816            | .440877  |
| 4        |          |          | 023320                                  |   | .121910         | .133387      | .273132         | .297867            | .351438  |
|          | -+303134 | -4317170 | 023320                                  | - 1033303                               | .121710         | • 133301     | • 213132        | • 2 7 1 0 0 1      | *331430  |
| 5        | - 252919 | - 264774 | 016780                                  | - 028470                                | .092068         | .100752      | .211600         | .230141            | .284293  |
|          |          |          | 005468                                  |   |                 |              |                 |                    | .245790  |
| 6        |          |          |   |   | .080859         |              | .178293         | .192427<br>.157042 |          |
|          |          |          | .002498                                 |   | .064816         | .068957      |                 |                    | -209021  |
| 8        |          | 037624   | 000010                                  |   | .027938         | .028467      | .092746         | .098655            | .146630  |
| 7        | 034373   | 03/024   | .002507                                 | .001047                                 | 012944          | 015565       | .032584         | .034446            | .076685  |
| 10       | 000004   | 0.07.000 | 003433                                  | 002702                                  | - 051540        | - 055340     | 025252          | - 024751           | .007602  |
| 10       | .008824  |          |   |   |                 |              |                 | 026751             |          |
| 11       | .051863  |          |   |   |                 |              |                 | 078885             |          |
| 12       | .083244  |          |   |   |                 |              |                 | 116927             |          |
| 13       | -107887  |          |   |   |                 |              |                 | 150486             |          |
| 14       | .129969  | .132010  | 005557                                  | 001372                                  | 119031          | 123201       | 113913          | 181367             | 173769   |
| 15       | .153525  | .157078  | .005092                                 | 010010                                  | _ 112101        | - 117310     | _ 101011        | 191322             | - 190070 |
|          |          |          |   |   |                 |              |                 | 206274             |          |
| 16       | .173128  | .177873  | .018162                                 |   |                 |              |                 |                    |          |
| 17       | .189390  | .194706  | .028748                                 |   |                 |              |                 | 229018             |          |
| 16       | -202524  | .208571  | .027946                                 |   |                 |              |                 | 235251             |          |
| 19       | .210384  | .216324  | .024417                                 | •028976                                 | 104465          | 115517       | 223498          | 238028             | 230444   |
| 20       | .214722  | .220954  | .015765                                 | 010170                                  | - 124550        | - 120349     | - 227774        | 241145             | - 247542 |
| 21       | .217694  |          | .011330                                 |   |                 |              |                 | 232716             |          |
| 22       | .214980  | .221047  | .012446                                 | 015205                                  | - 120427        | - 135335     | - 211444        | 222620             | - 230490 |
| 23       | .208263  | .214308  | .011763                                 |   |                 |              |                 | 219386             |          |
| 24       | .210947  |          | .003802                                 |   |                 |              | _               | 213152             |          |
| 24       |          |          | .003002                                 | *000370                                 | - * * 0 4 0 3 0 |              | - * 2 0 2 0 3 0 | - • 21 )1 )2       | . 220047 |
| 25       | .206310  | .212867  | 004724                                  | 003046                                  | 092508          | 097595       | 203072          | 213288             | 230188   |
| 26       | .198413  |          |   |   |                 |              |                 | 221918             |          |
| 27       | .178293  |          |   |   |                 |              |                 | 221601             |          |
| 28       | .157473  |          |   |   |                 |              |                 | 209664             |          |
| 29       | .140357  |          |   |   |                 |              |                 | 177910             |          |
| -        |          |          |   |   |                 |              |                 |                    |          |
| 30       | .119243  | .122455  | .007657                                 | .007091                                 | 054504          | 057773       | 131031          | 134082             | 176722   |
| 31       | .094857  |          |   |   |                 |              |                 | 084915             |          |
| 32       | .067316  | .067621  | .014533                                 |   |                 |              |                 | 048128             |          |
| 33       | .035771  | .034255  |   |   |                 |              |                 | 018000             |          |
| 34       |          | 001563   |   |   | 001661          |              |                 |                    |          |
|          |          |          |   |   |                 |              |                 |                    |          |
| 35       | 030589   | 032476   | .009380                                 | .013402                                 | .007832         | .008011      | .020354         | .020239            | 014700   |
| 36       | 049498   |          | .012060                                 | .016562                                 | .016766         | .016861      | .029977         | .028414            | 000380   |
| 37       | 057405   | 058634   | .017936                                 | .024022                                 | .032630         | .034235      | .049209         | .048370            | .018686  |
| 38       | 059508   | 059761   | .028118                                 | .034856                                 | .047528         | .049213      | .064384         | .063769            | .036593  |
| 39       | 064753   | 063020   | .031881                                 | .038061                                 | .052440         | .053738      | .079456         | .078119            | .057426  |
|          |          |          |   |   |                 |              |                 |                    |          |
| 40       | 072798   | 069036   | .031256                                 | .035747                                 | .061228         | .061521      | .099110         | .096831            | .084563  |
| 41       | 081075   |          |   |   | .071554         | .071664      | .106796         | .104136            | .096465  |
| 42       |          |          | .006742                                 |   | .079471         | .078966      | .109993         | .106583            | .104599  |
| 43       |          |          | 000884                                  |   |                 |              | .107604         | .103672            | .107491  |
| 44       | 102010   | 095167   | .004629                                 | .006995                                 | .080853         | .082524      | .105905         | .102781            | .107913  |
| _        | 55       |          |   |   |                 |              |                 |                    |          |
| 45       |          |          | .011121                                 |   | .093262         | .095340      | -109724         | .106852            | .113149  |
| 46       |          |          | .007033                                 |   | .086046         | .088557      | .110769         | .107550            | .112117  |
| 47       |          |          | 002049                                  |   | .053975         | .055456      | .090012         | .086084            | .086768  |
| 48       |          |          | 011729                                  |   | .033547         |              | .067270         | .063426            | .058328  |
| 49       | 082181   | 077354   | 017786                                  | 016296                                  | .031419         | .032568      | .071952         | .068404            | .059406  |
|          |          |          |   | 010                                     |                 |              |                 |                    |          |
| 50       |          |          | 019286                                  |   | .040634         |              | .077312         | .073693            |          |
| 51       |          |          | 020430                                  |   | .042339         |              | .069982         | .066671            | .052038  |
| 52       |          |          | 020556                                  |   | .037738         | .039716      | .057871         | .054985            | .039838  |
| 53       |          |          | 025578                                  |   | .025154         | .026416      | .042566         | .040320            | .021694  |
| 54       | 024181   | 020598   | 024328                                  | 022332                                  | .010833         | .010890      | .026027         | .024839            | 001947   |
| 66       | - 004013 | - 002220 | - 027759                                | - 027860                                | - 004343        | - 005045     | 022402          | 024434             | - 011030 |
| 55<br>54 |          |          | 027258                                  |   |                 |              | .023483         |                    | 011028   |
| 56       | .014897  |          | 035025                                  |   |                 |              | .026264         |                    | 011544   |
| 57       | .022425  |          | 032558<br>028438                        |   |                 |              |                 |                    | 023267   |
| 58       | .023293  |          |   |   |                 |              |                 |                    | 034056   |
| 59       | .029860  | .027014  | 01/044                                  | 020413                                  |                 |              | 00589/          | 004399             | 035/10   |
| 60       | .047020  | .045552  | 002762                                  | 011401                                  | w. 017777       | 019524       | 019819          | 019834             | - 044534 |
| 50       | *U71U2U  | *******  | .002102                                 |   |                 | . 410330     |                 | . 017034           | * UTTJJ7 |

RUN NO. 82D 16M 11-02-62 0800-0915 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| М      | U,V                | U, W             | U.T              | V, W               | V, T             | W, T               |
|--------|--------------------|------------------|------------------|--------------------|------------------|--------------------|
|        | 0.12967            | 0.96637          | 0.46475          | 0.83977            | 0.40386          | 0.30098            |
|        | 10E 00             | 10E-01           | 10E-01           | 10E-01             | 10E-01           | 10E-01             |
| 1      | .003826            | 059559           | 053571           | -017269            | .005772          | .003862            |
| 2      | .003270            | 107237           | 087213           | .019194            | .003151          | .012033            |
| 3      | .010003            | 135635           | 105073           | .015512            | 001690           | .016189            |
| 4      | .015860            | 134966           | 112709           | .010658            | 005084           | .017680            |
| 5      | .027177            | 124427           | 113202           | .005797            | 008018           | .011208            |
| 6<br>7 | .035193<br>.036167 | 110817           | 112186           | 001751             | 008863<br>001779 | .006673<br>.013506 |
|        | _ :                | 093346           | 112114           | .000553            |                  |                    |
| 8      | .032329<br>.031669 | 094223<br>098773 | 114828           | .001131            | .008327          | .023714            |
| 10     | .032937            | 081813           | 111402<br>101054 | .009850<br>.020810 | .013694          | .034576<br>.043776 |
| 11     | .027468            | 054841           | 084956           | .026115            | .013073          | .055872            |
| 12     | .015639            | 031223           | 071714           | .025797            | .003448          | .065470            |
| 13     | .004280            | 011111           | 066088           | .027236            | 011294           | .062135            |
| 14     | 003065             | 003199           | 062926           | .032770            | 027114           | .048338            |
| 15     | 005276             | 006135           | 053909           | .028191            | 032614           | .033415            |
| 16     | 003658             | 008822           | 041864           | .024244            | 035013           | .027300            |
| 17     | 002212             | .004893          | 026967           | .028139            | 036787           | .026260            |
| 18     | 003365             | .010371          | 017702           | .026839            | 031334           | .017718            |
| 19     | 007500             | .003859          | 017656           | .016816            | 028567           | .005304            |
| 20     | 013955             | .004202          | 020414           | 003429             | 030949           | •002666            |
| 21     | 019586             | .003439          | 020527           | 025022             | 026002           | .001421            |
| 22     | 016493             | .003759          | 017354           | 031067             | 015103           | .000081            |
| 23     | 003650             | .010734          | 015555           | 022729             | 013661           | 007618             |
| 24     | .009353            | .018792          | 012649           | 018988             | 023806           | 004170             |
| 25     | .016413            | .021026          | 002054           | 014883             | 035132           | .001596            |
| 26     | .021105            | .017002          | .007438          | 011242             | 039733           | 003373             |
| 27     | .021217            | . 026094         | .011575          | 013842             | 039945           | 007762             |
| 28     | .022782            | .042007          | .018622          | 018595             | 029845           | 015349             |
| 29     | .023836            | .047657          | .023161          | 022641             | 018014           | 015696             |
| 30     | .018048            | .041136          | .024170          | 023295             | 003772           | 016663             |
| 31     | .017314            | .022661          | .024447          | 017386             | .021523          | 012880             |
| 32     | .021330            | .006705          | .026544          | 006216             | .047004          | 003062             |
| 33     | .020950            | 003137           | .026557          | .005697            | .062443          | .003064            |
| 34     | .021521            | 009553           | .029218          | -015028            | .071356          | .008114            |
| 35     | .019084            | 012463           | .040011          | .011747            | .071387          | -001462            |
| 36     | .016692            | 016527           | .050428          | .011703            | .064053          | 012766             |
| 37     | .018257            | 018619           | .051057          | .011900            | .061012          | 025332             |
| 38     | .020658            | 018410           | .047891          | .011995            | .061186          | 035152             |
| 39     | .016948            | 017258           | .039865          | .006325            | .059825          | 031158             |
| 40     | .008836            | 019559           | .032903          | 001718             | .052486          | 020017             |
| 41     | 002987             | 012609           | .037074          | 000698             | .048197          | 012823             |
| 42     | 010837             | .000577          | .046909          | .012020            | .049759          | 008170             |
| 43     | 019900             | .006018          | .049563          | .017252            | .048828          | 013065             |
| 44     | 025342             | .005905          | .046398          | .011555            | .049655          | 011035             |
| 45     | 026637             | .000704          | .033852          | .002517            | .044329          | 010580             |
| 46     | 031098             | 007708           | .021157          | .001715            | .033404          | 015113             |
| 47     | 033321             | 015987           | .012298          | .002438            | .019270          | 026795             |
| 48     | 033364             | 017421           | .006083          | .000505            | .005470          | 025634             |
| 49     | 032121             | 020655           | .000050          | .002876            | 003300           | 022117             |
| 50     | 027086             | 018568           | 002916           | .002585            | 004034           | 022714             |
| 51     | 026108             | 024108           | 010357           | 006752             | 017063           | 018316             |
| 52     | 024478             | 030845           | 027603           | 015856             | 036926           | 010595             |
| 53     | 025351             | 029138           | 041699           | 016106             | 041471           | 005194             |
| 54     | 029016             | 022461           | 046270           | 014289             | 041952           | .000572            |
| 55     | 035200             | 006455           | 040712           | 015868             | 049334           | .001912            |
| 56     | 034231             | .011153          | 029678           | 017647             | 063824           | .003754            |
| 57     | 030214             | .030978          | 021628           | 025292             | 074624           | .010532            |
| 58     | 029415             | .047226          | 018250           | 033955             | 083633           | .025842            |
| 59     | 026305             | .055131          | 020076           | 033091             | 089175           | .032382            |
| 60     | 018919             | .053380          | 032349           | 018262             | 077705           | .037252            |

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| Ņ        | U, N               | U.RHO(W)           | V,N              | V,RHO(W) | W. N             | W. RHO(W) | T , N              | T.RHO(W)  | N;RHO(W)           |
|----------|--------------------|--------------------|------------------|----------|------------------|-----------|--------------------|-----------|--------------------|
|          | 0.21012            | 0.41221            | 0.18259          | 0.35821  | 0.13608          | 0.26696   | 0.65442            | 0.12839   | 0.58044            |
|          | 10E 00             | 10E-01             | 10E 00           | 10E-01   | 10E 00           | 10E-01    | 10E-01             | 10E-01    | 10E-01             |
| 1        | 035240             | 030gg4             | .010841          | . 010052 | 004785           | 003120    | 009068             | 007360    | .001863            |
| 2        | 061367             |                    | .012154          | .010814  | .000909          |           | 019547             |           | .003949            |
| 3        | 076356             |                    | .008025          | .006499  | -007345          |           | 027642             |           | .005561            |
| 4        | 078487             |                    | .001970          | .000789  | .006727          | .009243   | 036510             | 030015    | .007494            |
| 5        | 076959             | 086450             | 004916           | 005713   | 001486           | .001271   | 041985             | 034513    | .008683            |
| 6        | 077606             | 086852             | 008272           | 008478   | 008458           | 005729    | 046111             | 038349    | .009238            |
| 7        |                    |                    |                  |          |                  |           | 049580             |           | .009846            |
| 8        | 081897             | 090920             | .007627          | .008050  | 011153           | 004268    | 049563             | 041096    | .009979            |
| 9        | 080812             |                    | .010443          |          | 005829           |           | 048835             |           | .009811            |
| 10       | 072285             | 080116             | .011739          | -012872  | •006995          | .014714   | 043970             | 036555    | .008772            |
| 11       | 055569             | 063028             | .012072          | .013011  | .024496          | .031383   | 037929             | 031840    | .007266            |
| 12       | 039028             | 046766             | .000351          | .001262  | .037538          | .044253   | 038841             | 032418    | .007694            |
| 13       |                    |                    | 014437           |          | .037852          |           | 044977             |           | .009344            |
| 14       |                    |                    | 025671           |          | .029187          |           | 049671             |           | .010232            |
| 15       | 016550             | 024899             | 028015           | 029890   | .023298          | .028074   | 043638             | 035836    | .009069            |
| 16       | 009300             | 016134             | 028795           | 030879   | .024669          | . 025895  | 031085             | 025621    | .006451            |
| 17       |                    |                    | 028662           |          | .026265          |           | 025337             |           | .005136            |
| 18       |                    |                    | 024821           |          | .019075          |           | 020616             |           | .003988            |
| 19       |                    |                    | 023605           |          | .010419          |           | 017623             |           | .003372            |
| 20       | 008538             | 010928             | 021546           | 024489   | .014369          | .012214   | 014737             | 012339    | .002802            |
| 21       | 015599             | 016981             | 016900           | 019798   | .020585          | .017095   | 009125             | 007704    | .001715            |
| 22       |                    |                    | 007114           |          | .025360          |           | 004570             |           | .001187            |
| 23       |                    |                    | 000242           |          | .019388          | .014567   | .000729            | .000982   | .000311            |
| 24       |                    |                    | 003494           |          | .014652          | .011621   | .003856            |           | 000314             |
| 25       | 021735             | 018915             | 007660           | 013932   | .009486          | .008600   | .003980            | .003925   | 000178             |
| 26       | 011826             | 008727             | 009109           | 015869   | 001837           | 001996    | .004932            | .004657   | 000428             |
| 27       |                    |                    | 014070           |          |                  |           | .007161            |           | 001127             |
| 28       | 001343             |                    | 012374           |          |                  |           | .009057            |           | 001487             |
| 29<br>30 | .002351<br>.004343 |                    | 007880<br>000183 |          |                  |           | .010000            |           | 001761<br>002253   |
| 50       | .004545            | 1000210            | 000103           | 001177   | 01/371           |           | .011930            | .010028   | 002233             |
| 31       | .008932            | .012132            | .021108          | .021682  | 015022           | 014775    | .013271            | .011250   | 002477             |
| 32       | .016155            | .018641            | .045365          |          | 005274           |           | .013081            | -         | 002373             |
| 33       | .020861            | .022512            | .055129          |          | 003337           |           | .012065            |           | 002206             |
| 34<br>35 | .026926<br>.038772 | .028068<br>.039924 | .059362          |          | 001489<br>007300 |           | .008559            |           | 001510<br>000314   |
| ,,       | 1030112            | 103772.4           | 1070072          | .000100  | 001300           | 007344    | .003113            | * 002 710 | 000314             |
| 36       | .052858            | .053711            | .046122          |          |                  | 021125    | .000909            | .001138   | .000174            |
| 37       | .058110            | .058272            | .037571          |          |                  | 036213    | .000051            | .000207   | .000118            |
| 38<br>39 | .057371<br>.051320 | .057179            | .035287          |          |                  |           | 004269             |           | .000802            |
| 40       | .046710            | .045155            | .033728          |          |                  |           | 008668             |           | .002004            |
|          |                    |                    |                  |          |                  |           |                    |           |                    |
| 41       | .052660            | .051130            | .032509          |          |                  |           | 007719             |           | .001702            |
| 42       | .063443            | .062035            | .034874          |          |                  |           | 009271             |           | .002044            |
| 43       | .067175<br>.064479 | .065750            | .037904          |          |                  |           | 010873             |           | .001965            |
| 45       | .053242            | .050871            | .036197          |          |                  |           | 020226             |           | .003750            |
|          |                    |                    |                  |          |                  |           |                    |           |                    |
| 46       | .041908            | .038916            | .024746          |          |                  |           | 019882             |           | •003943            |
| 47       | .034953            | .031439            | .013537          |          |                  |           | 019107             |           | .003932            |
| 48<br>49 | .031700<br>.025432 | .027482            |                  |          |                  |           | 020563<br>023227   |           | .004072<br>.004334 |
| 50       | .017259            |                    |                  |          |                  |           | 026998             |           | .005215            |
| •        |                    |                    |                  |          |                  |           |                    |           |                    |
| 51       | -004141            |                    |                  |          |                  |           | 023820             |           | -004637            |
| 52       |                    |                    |                  |          |                  |           | 015378             |           | .002730            |
| 53<br>54 |                    |                    |                  |          |                  |           | 008423<br>003783   |           | .001223<br>.000145 |
| 55       |                    |                    |                  |          |                  |           | 001264             |           |                    |
|          |                    |                    |                  |          |                  |           |                    |           |                    |
| 56       |                    |                    | 056086           |          |                  |           | .003760            |           | 001225             |
| 57       |                    |                    | 074307           |          | .006728          | .007489   | .010789            |           | 002620             |
| 58<br>59 |                    |                    | 087893<br>095249 |          | .030145          | .030095   | .017079<br>.018832 |           | 003806<br>003898   |
| 60       |                    |                    | 087764           |          | 049920           | .048746   | .021129            |           | 004379             |
| - •      |                    |                    |                  | -//      |                  |           |                    |           |                    |

RUN NO. 82D 16M 11-02-62 0800-0915 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

## NORMALIZED AUTOCOVARIANCE

| MONTHE.  | LED HOTOGOTHET       |                    |                    |                    |                    |                    |
|----------|----------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| М        | U                    | ٧                  | W                  | T                  | N                  | RHO(W)             |
|          | •                    | ·                  | -                  |                    |                    |                    |
|          | 0.14922              | 0.11268            | 0.62584            | 0.14475            | 0.29587            | 0.11387            |
|          | 10E 00               | 10E 00             | 10E-01             | 10E-01             | 10E 00             | 10E-01             |
| _        |                      |                    |                    |                    |                    |                    |
| 0        | 1.000000             | 1.000000           | 1.000000           | 1.000000           | 1.000000           | 1.000000           |
| 1<br>2   | .857790<br>.691695   | .828148<br>.592523 | .722256<br>.405373 | .825957<br>.609390 | .810033<br>.585870 | .810734<br>.584635 |
| 3        | .561334              | .424106            | .220664            | .461164            | .447108            | .442382            |
| 4        | .450151              | .308756            | .122913            | .355215            | .358858            | .350424            |
| •        |                      |                    | *******            | *******            |                    |                    |
| 5        | . 356628             | .227909            | .073547            | .271410            | .292559            | .281339            |
| 6        | . 268584             | .167838            | .049637            | .221978            | .254155            | .241825            |
| 7        | .176227              | -115840            | .033920            | .176962            | .217366            | -204301            |
| 8        | .093870              | .059377            | .000973            | .108689            | .155132            | .140868            |
| 9        | .031300              | 001272             | 040108             | .038027            | .085388            | .069913            |
| 10       | 012107               | 054745             | 077796             | 028223             | .015714            | .000643            |
| 10<br>11 | 062850               | 105965             | 115047             | 083582             | 045818             | 060056             |
| 12       | 111106               | 139618             | 142544             | 122035             | 091454             | 105113             |
| 13       | 145829               | 156869             | 155966             | 153671             | 132905             | 145930             |
| 14       | 179813               | 165453             | 163140             | 184837             | 167420             | 180535             |
|          |                      | •                  |                    |                    |                    |                    |
| 15       | 216495               | 176725             | 173809             | 201266             | 173138             | 187777             |
| 16       | 250650               | 197751             | 162260             | 222920             | 183253             | 199581             |
| 17       | 284411               | 221826             | 143080             | 250999             | 201410             | 219936             |
| 18       | 312436               | 238450             | 135314             | 260762             | 209780             | 227760             |
| 19       | 323454               | 246719             | 141789             | 262829             | 224267             | 238540             |
| 20       | 327731               | 257232             | 153963             | 260795             | 243935             | 253279             |
| 21       | 322533               | 259261             | 162146             | 247804             | 248316             | 253467             |
| 22       | 317768               | 243728             | 145532             | 236508             | 238261             | 242787             |
| 23       | 312793               | 216632             | 137989             | 232020             | 233191             | 238150             |
| 24       | 305742               | 196714             | 143346             | 224427             | 226973             | 232122             |
|          |                      |                    |                    |                    |                    |                    |
| 25       | 282605               | 186307             | 146514             | 224429             | 228865             | 233369             |
| 26       | 251365               | 177160             | 120474             | 229766             | 246505             | 248416             |
| 27       | 224913               | 158731             | 107001             | 224684             | 255792             | 254623             |
| 28       | 200857               | 146935             | 097298             | 208482             | 250474             | 247221             |
| 29       | 178102               | 139405             | 090741             | 174765             | 221958             | 216183             |
| 30       | 147171               | 128761             | ~.063943           | 127871             | 182060             | 172960             |
| 31       | 111925               | 105145             | 033069             | 074997             | 134963             | 123255             |
| 32       | 068901               | 068415             | 027251             | 036467             | 098290             | 084749             |
| 33       | 033278               | 042320             | - 027560           | 006097             | 071864             | 055324             |
| 34       | 012079               | 022246             | 021658             | .008907            | 046244             | 029643             |
|          |                      |                    |                    |                    |                    |                    |
| 35       | .000017              | .002831            | 007617             | .015963            | 023249             | 007691             |
| 36       | .014824              | .015614            | .013532            | .017597            | 008280             | .005784            |
| 37       | .030118<br>.044512   | .012540            | .045036            | .037933            | .010023            | .025603<br>.043383 |
| 38<br>39 | .063561              | .018525<br>.032370 | .072256<br>.086831 | .052152<br>.061177 | .028167<br>.049679 | .063519            |
| ,,       | .003301              | •032370            | *000031            | 1001111            | *047017            | •003317            |
| 40       | .074250              | .042767            | .090638            | .074622            | .077900            | .089543            |
| 41       | .076402              | .045522            | .080048            | .079524            | .090295            | .100941            |
| 42       | .085712              | .037108            | .059701            | .077618            | .099106            | .108362            |
| 43       | .088381              | .009809            | .044406            | .073167            | .103342            | .110055            |
| 44       | .087607              | 012353             | .071171            | .075403            | .104238            | .110256            |
|          | 001000               | 011044             | 10/2/2             | 000335             | 100074             | 115005             |
| 45       | .084802              | 011064             | -106240            | .080735            | .109876            | -115205            |
| 46<br>47 | • 076912<br>• 074829 | .003798            | •104833<br>•077360 | .080702            | .108582<br>.083193 | •114322<br>•988875 |
| 48       | .071756              | .010533            | .061534            | .060143<br>.041173 | .054417            | .060724            |
| 49       | .063405              | .019611            | .063980            | .046477            | .054517            | .062659            |
| 12.      | . 005405             |                    |                    |                    |                    | ,                  |
| 50       | .053288              | .028029            | .066089            | .049853            | .056810            | .066335            |
| 51       | .040942              | .040289            | .049832            | .044789            | .045928            | .056390            |
| 52       | .021445              | .059857            | .022935            | .036671            | .034204            | .043881            |
| 53       | .007396              | .085134            | 002168             | .025707            | .015798            | .026099            |
| 54       | 000755               | .099434            | 021666             | .016790            | 008756             | .003427            |
| 55       | - 012208             | 101100             | - 027100           | 024577             | - 010043           | - 004101           |
| 56       | 012308<br>028223     | .101100<br>.098684 | 027100<br>049174   | .026577<br>.037512 | 019043<br>020506   | 004191<br>003549   |
| 57       | 036219               | .095525            | 063600             | .031361            | 031905             | 015370             |
| 58       | 028422               | .089739            | 048041             | .017448            | 041849             | 026944             |
| 59       | 021129               | .086244            | 027016             | .002920            | 041004             | 030131             |
|          |                      |                    |                    | <del>-</del>       |                    |                    |
| 60       | 018078               | .088427            | 006507             | 016198             | 048809             | 041014             |

RUN NO. 82D

| 61 PO       | . 82D 16P<br>Int running P | 11-02-62<br>EAN, NO BLOC  | 0800-0915         | E21                  |                            |                    |
|-------------|----------------------------|---------------------------|-------------------|----------------------|----------------------------|--------------------|
| COSPEC      |                            |                           | w wirewalli       |                      |                            |                    |
| K           | U.V -                      | 11 44                     |                   |                      |                            |                    |
|             |                            | U, W                      | U, T              | V, W                 | V, T                       | W, T               |
|             | 10E-02                     | 10E-02                    | 10E-02            | 10E-02               | 105.00                     |                    |
| 0           | .020338                    | - 030751                  |                   |                      | 10E-03                     | 10E-02             |
| 1           | •210961                    | 020751<br>370496          | 03166T            | 004311               | 074931                     | .00832             |
| 2           | .178823                    | 695985                    | 375261            | 086210               | 845871                     | .12016             |
| 3           | -161702                    | 890928                    | 563178<br>631532  | 103057               | 844722                     | -21984             |
| 4           | -226114                    | 561273                    | 362507            | 057330<br>050756     | 712875<br>709388           | .27860             |
| 5           | . 163869                   | 254520                    |                   |                      | . 107368                   | -18931             |
| 6           | .015299                    | 171440                    | 160134            | 114155               | 493566                     | .12495             |
| 7-8         | 002692                     | 094097                    | 129850<br>081882  | 099139               | .011325                    | -10571             |
| 9-11        | •016471                    | 060377                    | 030115            | 031616               | .019705                    | .069142            |
| 12-15       | 031409                     | 054623                    | 012974            | -039870<br>-017717   | 063260                     | -035830            |
| 16-20       | 000657                     |                           |                   |                      | -149125                    | .039979            |
| 21-27       | 013940                     | 024714                    | 014983            | .016319              | .006940                    | 020050             |
| 28-36       | .000723                    | 004691                    | 008231            | -006140              | -008807                    | .030858<br>.012307 |
| 37-47       | . 002969                   | 001469<br>002 <b>6</b> 50 | 003212            | -005726              | -015580                    | .009008            |
| 48-60       | .000746                    | 000595                    | 001376            | •003594              | .001612                    | .004323            |
|             |                            | 0000373                   | 001299            | .001390              | .003289                    | .001764            |
| QUADRATU    | RE SPECTRUM                |                           |                   |                      |                            |                    |
| K           |                            |                           |                   |                      |                            |                    |
| •           | U <b>, V</b>               | U,W                       | U, T              | V. W                 | V.T                        | W, T               |
|             | 10E-02                     | 10E-02                    | 10E-02            | 10E-03               | 105                        |                    |
| 1           | .118751                    |                           |                   | 100 05               | 10E-03                     | 10E-03             |
| 2           | .066948                    | 116896                    | 102223            | .271646              | 096133                     | 270422             |
| 3           | . 036585                   | 169989                    | 164439            | •430033              | 500484                     | •279423<br>•442006 |
| 4           | -122809                    | 289648<br>301321          | 171542            | -747154              | 083654                     | •412975            |
| 5           | -132693                    | 223901                    | 111693<br>091583  | • 525283             | - 505694                   | 208752             |
|             |                            |                           | 071383            | 225686               | -137212                    | .019337            |
| 6           | .047559                    | 180902                    | 070047            | 516598               |                            |                    |
| 7-8<br>9-11 | 013543                     | 154793                    | 037430            | 050810               | 130445                     | ~.138975           |
| 12-15       | 015563                     | 046486                    | 016539            | -290357              | -008372                    | 134231             |
| 16-20       | 012042                     | 046706                    | 011814            | •173362              | 165000                     | .030021            |
| 10-20       | 008885                     | 022938                    | 011425            | .032148              | •093445<br>•024517         | •078658            |
| 21-27       | .008103                    | .007812                   |                   |                      | ******                     | 016887             |
| 28-36       | 001616                     | -001234                   | 000530            | .045231              | - 009450                   | 016605             |
| 37-47       | .002607                    | 001315                    | 001435            | -022851              | -012770                    | -004090            |
| 48-60       | .002236                    | -000021                   | 000660<br>.000094 | •012745              | .000622                    | 003131             |
|             |                            |                           | .000094           | .011917              | .001466                    | 002852             |
| OWER SPE    | CTRUM                      |                           |                   |                      |                            |                    |
| K           | U                          | ٧                         | w                 | T                    |                            |                    |
|             |                            |                           |                   | •                    | N                          | RHO(W)             |
|             | 10E-01                     | 10E-01                    | 10E-02            | 10E-02               | 10E-01                     | 10E-02             |
| 0           | .014788                    | .006883                   | -014162           | 015045               |                            | -                  |
| 1           | .176209                    | -105489                   | 285900            | .015840<br>.151466   | -043107                    | .013624            |
| 2           | - 263836                   | -157647                   | .554737           | • 220474             | -364523                    | -128047            |
| 4           | - 299993                   | -180729                   | .729665           | .255009              | • 482336<br>502043         | .181789            |
|             | -184387                    | -126556                   | .535485           | .163158              | •502963<br>•282801         | •197289<br>•113295 |
| 5           | .092708                    | .075854                   | .394563           | 000000               | · ·                        |                    |
| 6           | .069692                    | -060520                   | .354651           | .090021              | -165103                    | .064811            |
| 7-8         | .057321                    | -046388                   | .265724           | .072997              | -147863                    | .057555            |
| 9-11        | • 035154                   | .032415                   | 197042            | • 050263<br>• 035763 | .087126                    | .034532            |
| 2-15        | .017264                    | .024255                   | .203132           | .027908              | •06189 <u>1</u><br>•064749 | -024910            |
| 6-20        | .013325                    | .016564                   |                   |                      | - 007177                   | .024799            |
|             |                            | • O1030#                  | -137513           |                      |                            |                    |

•137513 •084417 •052557 •030595 •019337

.021001 .010086 .007898 .004270 .002578

.044163 .024131 .017930 .010048 .006088

.017242 .009162 .006872 .003810 .002293

16-20 21-27 28-36 37-47 48-60

.013325 .010070 .005144 .004135

•016564 •009310 •005244 •002940 •001622

RUN NO. 82D 16M 11-02-62 0800-0915 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

#### COSPECTRUM

| K     | U <sub>2</sub> N | U,RHO(W) | V.N     | V,RHO(W) | W,N     | W, RHO(W) | T+N     | T,RHO(W) | N,RHO(W) |
|-------|------------------|----------|---------|----------|---------|-----------|---------|----------|----------|
|       | 10E-01           | 10E-02   | 10E-02  | 10E-03   | 10E-01  | 10E-02    | 10E-02  | 10E-02   | 10E-02   |
| 0     | 006674           | 016580   | 004503  | 021044   | .001101 | .003303   | .031594 | .007996  | .075350  |
| 1     | 132023           | 281520   | 132689  | 374424   | .038992 | .084922   | .476684 | -104615  | .675168  |
| 2     | 237433           | 486161   | 155586  | 412958   | .084778 | .177150   | .827941 | .173920  | .929589  |
| 3     | 275362           | 560247   | 120019  | 329779   | .111210 | .230706   | .977786 | .204473  | .990614  |
| 4     | 149032           | 307059   | 122059  | 329040   | .073389 | .153247   | .577818 | .123159  | .562213  |
| 5     |                  |          | 093112  |          | .047348 | .099323   | .317420 | .067733  | .324639  |
| 6     | 053296           |          | .004135 | .010472  | .040251 | .084377   | .279303 | .058472  | .290004  |
| 7-8   |                  |          | 030727  | 045253   | .026448 | .055303   | .171708 | .036906  | .172069  |
| 9-11  | 011457           | 024110   | 067481  | 119524   | .014094 | .029273   | ·128650 | .027321  | .123375  |
| 12-15 | 004992           | 010411   | .027318 | .071187  | .019543 | .038800   | .118158 | .024184  | .126162  |
| 16-20 | 005713           | 012003   | 006205  | 008425   | .012799 | .026324   | .085021 | .017575  | .086848  |
| 21-27 | 003597           | 007250   | .007264 | .014084  | .005762 | .011606   | .042612 | .008736  | .046779  |
| 28-36 | 001397           | 002865   | .004152 | .009540  | .003940 | .007961   | .032589 | .005708  | .034918  |
| 37-47 | 000304           | 000746   | .000670 | .001496  | .001982 | .003997   | .017647 | .003633  | .019442  |
| 48-60 | 000584           | 001207   | .001710 | .003215  | .000831 | .001650   | .010271 | .002132  | .011726  |

#### QUADRATURE SPECTRUM

| K           | U.N     | U.RHO(W) | V.N     | V.RHO(W) | W.N     | W.RHO(W) | T,N     | T.RHO(W) | N.RHD(W) |
|-------------|---------|----------|---------|----------|---------|----------|---------|----------|----------|
|             |         |          |         | •        |         |          |         |          |          |
|             | 10E-02  | 10E-02   | 10E-02  | 10E-03   | 10E-02  | 10E-03   | 10E-02  | 10E-03   | 10E-03   |
| 1           | 239263  | 057513   | .023774 | .017800  | .046483 | .127681  | 102256  | 164616   | .190760  |
| 1<br>2<br>3 | 508555  | 112033   | 152850  | 339877   | .144240 | .313622  | 100936  | 164069   | .181879  |
| 3           | 445913  | 102839   | 064177  | 115608   | .062937 | .175168  | 117263  | 191603   | .205540  |
| 4           | 298292  | 068315   | .150579 | .339768  | 052949  | 047988   | 071698  | 116848   | .126548  |
| 5           | 395425  | 080658   | .084389 | .162365  | 056235  | 086418   | 022095  | 035556   | .040994  |
|             |         |          |         |          |         |          |         |          |          |
| 6           | 319535  | 064385   | .008555 | 010194   | 055344  | 114356   | 011570  | 018340   | .022150  |
| 7-8         | 110745  | 024398   | .008585 | .014381  | 017473  | 053347   | 007907  | 012723   | .013487  |
| 9-11        | 023835  | 006954   | 042382  | 097851   | .021881 | .041350  | 007183  | 010870   | .015693  |
| 12-15       | 046158  | 009463   | .048801 | .096829  | .023620 | .052109  | .005194 | .008258  | 010964   |
| 16-20       | 039334  | 008444   | .017653 | .032389  | 019266  | 034382   | 002938  | 004561   | .005674  |
|             |         |          |         |          |         |          |         |          |          |
| 21-27       | .002494 | .000336  | .003626 | .007647  | 005014  | 011677   | .002302 | .003503  | 005011   |
| 28-36       | .001476 | 000057   | .004348 | .008692  | 004247  | 005447   | 000311  | 000211   | .001533  |
| 37-47       | 001302  | 000384   | 000293  | 000340   | 000591  | 001514   | .000201 | .000224  | 000681   |
| 48-60       | 000666  | 000112   | -000389 | -000517  | 000282  | 000677   | -000347 | .000633  | 000404   |

RUN NC. 82D 16M 11-02-62 0800-0915 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

| M        | U,V      | U, W     | 11. 7   |   |                   |                     |
|----------|----------|----------|---------|---|-------------------|---------------------|
|          | •••      | 0,4      | U, T    | V,W                                     | V, T              | W, T                |
|          | 0.11445  | 0.55858  | 0.47267 | 0.49251                                 | 0 (1(37           |                     |
|          | 10E 00   | 10E-01   | 10E-01  | 10E-01                                  | 0.41677<br>10E-01 | 0.20341             |
| -        |          |          |         | 101 01                                  | 105-01            | 10E-01              |
| 0        | .043835  | 430997   | 563285  | 043775                                  | 031738            | •498779             |
| 1        | 002983   | 063759   | 241607  | .055299                                 | .043645           |                     |
| 2        | 031138   | • 090946 | 007990  | .026773                                 | •071083           | •107230<br>••024398 |
| 3        | 053492   | .010704  | .049572 | -058089                                 | .078417           |                     |
| 4        | 079167   | 033534   | .052578 | .090453                                 | 126109            | 002815<br>-051816   |
| _        |          |          |         |   | •120107           | •031916             |
| 5        | 015023   | -016871  | .079191 | 016210                                  | .069425           | .006610             |
| 6        | .014295  | • 075490 | -110728 | 028994                                  | • 050035          | 057455              |
| 7        | .002898  | .033204  | .101921 | .034667                                 | .076212           | 086315              |
| 8        | • 029536 | 075703   | .051713 | .081655                                 | .057312           | 031063              |
| 9        | 006375   | •008063  | .073521 | 042484                                  | .037778           | 022272              |
|          |          |          |         |   | • 03.110          | 022212              |
| 10       | 008875   | .048617  | .056772 | 074780                                  | .047847           | 048525              |
| 11       | 060343   | 039465   | 002524  | .024893                                 | .034268           | 034282              |
| 12       | 090178   | .010316  | .024297 | .117843                                 | • 033241          | 049389              |
| 13       | .007909  | 062460   | 075071  | 042686                                  | 025288            |                     |
| 14       | •115315  | 055530   | 113910  | 087879                                  | 074241            | -048588             |
|          |          |          | _       |   | *017271           | 003118              |
| 15       | .112530  | 056341   | 143290  | 100194                                  | 088963            | 055404              |
| 16       | • 055261 | 078730   | 143601  | 029249                                  | 041608            | • 055496            |
| 17       | •015398  | .077070  | 082257  | .006987                                 | .003001           | •059921             |
| 18       | .020517  | .108111  | 049937  | .066119                                 | 015378            | 072619              |
| 19       | .025505  | .014400  | 000597  | 017456                                  | 064180            | 078944              |
| -        |          |          |         | *************************************** |                   | •028557             |
| 20       | .053682  | 016886   | .087763 | 042555                                  | 080418            | 045072              |
| 21       | .076147  | .079355  | .134156 | 055954                                  | 087513            | -065072             |
| 22       | .000814  | .153416  | .184274 | 078228                                  | 062249            | 027971              |
| 23       | 028753   | -108954  | .193255 | 062724                                  | 063708            | 167863              |
| 24       | 002653   | .028013  | .133920 | 054486                                  | 138116            | 099507              |
|          |          |          |         |   | 130110            | •006976             |
| 25       | 035206   | .096072  | .159889 | 008513                                  | 109288            | 000/11              |
| 26       | 052957   | .083146  | .078372 | 019620                                  | 104517            | .000611             |
| 27       | 059660   | 008138   | 040974  | 088302                                  | 095191            | 001686              |
| 28       | 040737   | 084291   | 118016  | 069792                                  | 088373            | -024088             |
| 29       | 021774   | 108729   | 203389  | 101106                                  | 098205            | -089877             |
|          |          |          |         |   | •070203           | • 093650            |
| 30       | .001452  | 060632   | 177322  | 048655                                  | - 075345          | 050103              |
|          |          |          |         | *********                               | 075365            | .058193             |
|          |          |          |         |   |                   |                     |
| COSPECTR | :UM      |          |         |   |                   |                     |
|          |          |          |         |   |                   |                     |
| K        | U, V     | U.W      | U,T     | V, W                                    | V. T              | u T                 |
|          |          |          |         | * * * *                                 | ***               | W, T                |
|          |          |          |         |   |                   |                     |
|          | 10E-02   | 10E-02   | 10E-02  | 10E-02                                  | 10E-02            | 105-03              |
| -        |          |          |         |   | 101-02            | 10E-03              |
| 0        | 014483   | 025323   | 027727  | .015551                                 | • 056039          | 007100              |
| 1        | 204756   | 134809   | 113937  | .123499                                 | 258436            | -087199             |
| 2        | 157326   | 040912   | 050367  | .073983                                 | .098831           | .559545             |
| 3        | .033998  | 038233   | 195753  | .020441                                 | 024833            | •503488             |
| 4        | .065829  | 149391   | 372303  | 00377B                                  | 053540            | •642532             |
|          |          |          |         |   |                   | .783319             |
| 5        | 062973   | 130726   | 221363  | 011807                                  | 043210            | E33455              |
| 6        | 044330   | 074912   | 128374  | .013598                                 |                   | •527450             |
| 7        | .127022  | 086195   | 183691  | 010181                                  | 009849<br>019708  | .303188             |
| 8        | .296730  | 128587   | 173925  | 072902                                  |                   | • 286481            |
| 9-11     | .040376  | 075872   | 121081  | 011607                                  | 060218            | .343933             |
|          |          |          |         | .011001                                 | 022771            | • 325503            |
| 12-14    | .064809  | 149246   | 123044  | 056895                                  | 010000            | 440000              |
| 15-21    | 006931   | 132546   | 074568  | .011899                                 | 019908            | .649293             |
| 22-30    | .035888  | 088782   | 054714  | 044745                                  | 009943            | •416057             |
|          |          |          |         | • 1770                                  | 016762            | .378936             |
|          |          |          |         |   |                   |                     |

RUN NO. 82D 16M 11-02-62 0800-0915 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

| М        | U, N    | U,RHO(W)  | V.N     | V,RHO(W) | W, N    | W,RHO(W)  | TIN     | T,RHO(W)    | N,RHO(W)   |
|----------|---------|-----------|---------|----------|---------|-----------|---------|-------------|------------|
|          | 0.23186 | 0.43144   | 0.20444 | 0.38041  | 0.99778 | 0.18567   | 0.84433 | 0.15711     | 0.77068    |
|          | 10E 00  | 10E-01    | 10E 00  | 10E-01   | 10E-01  | 10E-01    | 10E-01  | 10E-01      | 10E-01     |
|          |         |           | •       |          |         | • • • • • |         |             |            |
| 0        | 374973  | 438566    | .100053 | .080308  | .386810 | .435825   | .594248 | .716152     | .986873    |
| i        | 117048  | 150128    | .133273 | .124720  | .080815 | .091865   | .318637 | .398134     | .653494    |
| 2        |         | .053183   | .143001 | .138774  | 015074  | 018221    | .145868 | .195446     | .368896    |
| 3        | .054730 | .056727   | .118132 | .118137  | .051675 | .044790   | .125669 | .155011     | .243287    |
| 4        | 025618  | 011399    | .130799 | .139361  | .130882 | .123883   | .176242 | .186352     | .201887    |
|          |         |           |         |          |         |           |         |             |            |
| 5        | 033322  | 012866    | .074288 | .079248  | .104262 | .091030   | .143153 | .135994     | .095999    |
| 6        | -024916 | .044113   | .065473 | .067003  | .015881 | .002288   | .053648 | .035884     | 056327     |
| 7        | .019636 | .037275   | .065564 | .071532  | 015894  | 031157    | 000866  | 031902      | 116467     |
| 8        | 008643  | .002464   | .032522 | .039685  | .039799 | .028164   | .007243 | 025039      | 098218     |
| 9        | .013488 | .027133   | .002077 | .009417  | 011208  | 014456    | .012684 | 015316      | 105607     |
|          |         |           |         |          |         |           |         |             |            |
| 10       | .024431 |           |         |          |         |           | .001859 |             |            |
| 11       | 025150  |           |         |          |         |           | 017566  |             |            |
| 12       | .019670 |           |         |          |         |           | 083471  |             |            |
| 13       |         |           |         |          |         |           | 050212  |             |            |
| 14       | 026788  | 046494    | 074199  | 079437   | 100904  | 088451    | 076463  | 068708      | 147484     |
|          |         |           |         |          |         |           |         |             |            |
| 15       |         |           |         |          |         |           | 059217  |             |            |
| 16       |         |           |         |          |         |           | 089772  |             |            |
| 17       |         |           |         |          |         |           | 169389  |             |            |
| 18       |         |           |         |          |         |           | 189732  |             |            |
| 19       | •025900 | .023687   | 188935  | 177179   | .008499 | .012436   | 139315  | 136735      | 205408     |
|          |         |           |         |          |         |           |         |             |            |
| 20       | .029567 |           | 205554  |          |         |           | 122334  |             |            |
| 21       | .054656 |           | 156544  |          | .025451 |           | 139590  |             |            |
| 22       | .066772 |           |         |          |         |           | 194595  |             |            |
| 23       | .054554 |           |         |          |         |           | 178624  |             |            |
| 24       | .012578 | .03/541   | 001792  | 028449   | .073888 | .065965   | 123909  | 155392      | 014251     |
| 25       | 050011  | .076334   | 024955  | 000477   | 014901  | 016011    | 158002  | - 180034    | 020413     |
| 25<br>26 |         | .076334   | .049274 |          |         |           | 159573  |             |            |
| 27       | 052637  |           | .095381 |          |         |           | 127084  |             |            |
| 28       | 067872  |           | .084372 | .054952  |         |           | 087170  |             |            |
| 29       | 088343  |           | .045662 |          |         |           | 068402  |             |            |
| 47       | 000343  | - 1111707 | .042002 | •017701  | .031413 | 000111    | 000402  | 0 3 7 6 3 3 | - • 033033 |
| 30       | 036649  | 067493    | .013518 | 003283   | 043359  | 026747    | 033613  | 003166      | 023583     |

#### COSPECTRUM

| ĸ      | U, N   | U.RHO(W) | V,N     | V,RHO(W) | W.N      | W, RHD(W) | T , N    | T,RHO(W) | N,RHD(W) |
|--------|--------|----------|---------|----------|----------|-----------|----------|----------|----------|
|        | 10E-02 | 10E-02   | 10E-01  | 10E-02   | 10E-02   | 10E-03    | 10E-01   | 10E-02   | 10E-01   |
| 0      | 148043 | 028834   | .023368 | .048204  | .053664  | .102470   | .020204  | .041965  | .020620  |
| 1      | 599749 | 117879   | .168984 | .320880  | .496110  | .902472   | .121155  | .251335  | .149002  |
| 2      | 301019 | 058218   | .119697 | .211680  | .508231  | .912285   | .077082  | .166123  | .128579  |
| 3      | 315006 | 086941   | .033260 | .049216  | .310616  | .620150   | .037308  | .099883  | .096935  |
| 4      | 543667 | 156450   | .003240 | 004469   | .012958  | .166870   | .028067  | .085773  | .075640  |
| 5      | 409226 | 106998   | 002248  | 011371   | 019915   | .065971   | .023920  | .061126  | .058498  |
| 6      | 266387 | 065951   | 017643  | 030502   | .025577  | .095822   | .016156  | .037355  | .034897  |
| 6<br>7 | 395532 | 096983   | .008770 | .010146  | .032335  | .103907   | .012196  | .031127  | .029120  |
| 8      | 488824 | 111427   | .005692 | 002203   | .096886  | .220824   | .013609  | .031320  | .024799  |
| 9-11   | 515646 | 105320   | 008343  | 017602   | .107836  | .233577   | .015248  | .032347  | .017150  |
| 12-14  | 621940 | 122561   | 006293  | 013568   | . 275605 | .562657   | .025286  | .051723  | .025135  |
| 15-21  | 311261 | 064105   | 003429  | 007666   | .172404  | .356082   | .010948  | .023176  | .011229  |
| 22-30  | 2079R1 | 043628   | 003442  | 008635   | . 146456 | . 304707  | . 008838 | .018962  | 008673   |

RUN NO. 82D 16M 11-02-62 0800-0915 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

| M          | U,V      | U, W    | U,T     | V, W     | V, T    | W, T     |
|------------|----------|---------|---------|----------|---------|----------|
|            | 0.11445  | 0.55858 | 0.47267 | 0.49251  | 0.41677 | 0.20341  |
|            | 10E 00   | 10E-01  | 10E-01  | 10E-01   | 10E-01  | 10E-01   |
|            |          |         |         |          |         |          |
| 1          | .045547  | 116899  | 121580  | .021849  | .003830 | .030898  |
| 2          | .039161  | 038273  | 074288  | .034351  | .002075 | .016982  |
| 3          | .043061  | 074450  | 087673  | 029887   | .010440 | 003086   |
| 4          | .027736  | 072661  | 073520  | .032102  | .028273 | .017632  |
| 5          | 016391   | 033924  | 093839  | .004357  | 017710  | •0,35537 |
| 6          | .024857  | 009680  | 098467  | .001704  | 073743  | .041805  |
| 7          | .040004  | 036794  | 036410  | 026596   | 053645  | 040302   |
| В          | 010895   | 078045  | .000160 | .032138  | 083163  | 065579   |
| 9          | .008480  | 045808  | .022788 | .073 367 | 066846  | 042511   |
| 10         | 018186   | .063845 | .102280 | .047287  | 074598  | 052821   |
| 11         | 080074   | 002658  | .060580 | 059518   | 145234  | 066775   |
| 12         | 085897   | .010576 | .056830 | 058391   | 155097  | 081153   |
| 13         | 011407   | 003855  | .038565 | .088933  | 083743  | 065802   |
| 14         | .009417  | 032596  | .021199 | .094088  | 048301  | 067387   |
| 15         | 007367   | 011405  | .034114 | .075728  | 041861  | 075197   |
| 16         | 003718   | 018831  | 000335  | .047752  | 026293  | 034484   |
| 17         | .071331  | 063045  | 054121  | .125957  | .089217 | .003560  |
| 18         | .043543  | 017830  | 042868  | .007875  | .113348 | .038852  |
| 19         | 040482   | 007706  | 014329  | 009927   | .116631 | 017042   |
| 20         | 006431   | .051039 | 007466  | .002799  | .129340 | .028539  |
| 21         | 025788   | .005258 | 062276  | 065122   | .091519 | .082914  |
| 22         | 056334   | .011585 | 017432  | 074553   | .078728 | .074462  |
| 23         | 037099   | .069543 | .054494 | 135389   | .068066 | .068347  |
| 24         | .069801  | .086533 | .078021 | 091670   | .098793 | .085375  |
| 25         | .025551  | .084372 | .061708 | 027536   | .060933 | .116523  |
| 26         | 046636   | .065364 | .077609 | 018998   | 010695  | .036161  |
| 27         | 019899   | 019204  | .066255 | 031894   | 056578  | .018243  |
| 28         | .031216  | .087292 | .084201 | .023803  | 046246  | .082391  |
| 29         | .059958  | .113669 | .072921 | 019953   | 002189  | .100382  |
| 30         | .142367  | 047459  | .061839 | .058006  | .003419 | 008667   |
|            |          |         |         |          |         |          |
| QUADRATURE | SPECTRUM |         |         |          |         |          |
| K          | U,V      | U.W     | U, T    | V, W     | V,T     | W, T     |
|            | 10E-02   | 10E-02  | 10E-02  | 10E-02   | 10E-02  | 10E-03   |
| 1          | 050577   | 111809  | 017271  | .106589  | 153186  | 538990   |
| Ž          | .018718  | 105085  | 058203  | .041519  | 157139  | 296143   |
| 3          | .115925  | 082620  | 142344  | 046662   | .005747 | .310689  |
| 4          | .200024  | 109409  | 201216  | .010105  | .125620 | .408236  |
| 5          | .131915  | 085475  | 113619  | .048425  | .034936 | .114930  |
| 6          | 044937   | 020480  | 022496  | 028320   | 015617  | .023597  |
| 7          | 030342   | 023845  | 000212  | 019018   | .015296 | 013490   |
| 8          | .111665  | 056503  | .003800 | .040985  | .026998 | 039702   |
| 9-11       | .093621  | 059864  | 039441  | .016637  | 008682  | 058423   |
| 12-14      | .001594  | .018050 | 035771  | .003271  | 017405  | .159402  |
| 15-21      | .019586  | 051067  | 023079  | .017133  | .011499 | .027754  |
| 22-30      | .002629  | 042059  | 029705  | 029074   | 004072  | 007324   |

RUN NO. B2D 16M 11-02-62 0800-0915 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

| M  | U,N     | U,RHD(W) | V , N   | V,RHO(W) | W, N    | W, RHD(W) | T n     | T.RHO(W) | N,RHD(W) |
|----|---------|----------|---------|----------|---------|-----------|---------|----------|----------|
|    | 0.23186 | 0.43144  | 0.20444 | 0.38041  | 0.99778 | 0.18567   | 0.84433 | 0.15711  | 0.77068  |
|    | 10E 00  | 10E-01   | 10E 00  | 10E-01   | 10E-01  | 10E-01    | 10E-01  | 10E-01   | 10E-01   |
| 1  | 040333  | 058882   | -006544 | .006683  | 032358  | 022593    | 051532  | 045259   | .009804  |
| 2  | .034889 | .015871  | .012853 | .011459  | 065921  | 053932    | 062636  | 054845   | .012292  |
| 3  | .018014 | 002394   | .025920 | .025293  | 100031  | 087944    | 038866  | 034001   | .007544  |
| 4  | .053812 | .031824  | .033373 | .035204  | 094764  | 079439    | 037516  | 033198   | .006790  |
| 5  | .006513 | 012868   | .001094 | 002309   | 058664  | 044832    | 012047  | 011576   | .001383  |
| 6  | 061245  | 072817   | 025679  | 037405   | 007339  | .001231   | .042949 | .036402  | 009588   |
| 7  | 051399  |          | .020343 |          |         | 041344    | .076476 |          | 015533   |
| 8  | 085015  |          | .042948 |          |         | 081060    | .098104 |          | 020106   |
| 9  | 136860  |          | .072481 |          |         | 064360    | .126003 |          | 025463   |
| 10 | 124368  | 087823   | .045762 | .025027  | 044015  | 049386    | .141924 | .123523  | 028481   |
| 11 | 166083  | 132806   | 016554  | 043039   | 024704  | 034293    | .130704 | .114488  | 025754   |
| 12 | 124669  | 096590   | 030416  | 057651   | 022863  | 035601    | .088934 | .077764  | 017548   |
| 13 | 088723  | 068772   | .000888 | 016646   | .028300 | .011488   | .046305 | .040644  | 009201   |
| 14 | 063827  | 051274   | .017847 | .005381  | .061037 | .039270   | .028895 | .025307  | 005386   |
| 15 | .021019 | .024821  | 030571  | 034972   | .041704 | .021547   | .011434 | .010410  | 001370   |
| 16 | .015941 | .013515  | 074506  | 069561   | .059408 | .045196   | 010037  | 008329   | .002912  |
| 17 | .011682 | 000406   | 022630  | 001811   | .070086 | .061904   | 044340  | 038310   | .009531  |
| 18 | .081780 | .062970  | 004216  | .019246  | .054136 | . 054636  | 099747  | 086814   | .020663  |
| 19 | .139091 | .117836  | 002489  | .021025  | 005887  | 008038    | 122481  | 106107   | .025317  |
| 20 | .162186 | .138838  | .030649 | .052746  | .001153 | .007219   | 130458  | 112774   | .026854  |
| 21 | .106362 | .079263  | .026533 | .041873  | .042252 | .053024   | 138733  | 120152   | .028444  |
| 22 | .059789 | .047813  | .025050 | .037540  | .054554 | .062734   | 097061  | 083369   | .019814  |
| 23 | .084031 | .083610  | .032197 | .042234  | .020579 | .031535   | 066052  | 057130   | .013109  |
| 24 | .020798 | .033480  | .067688 | .078943  | .073984 | .081276   | 004845  | 004203   | .000699  |
| 25 | 069145  | 047613   | .043881 | .050021  | .127053 | .132434   | .033579 | .029069  | 006935   |
| 26 | 064895  | 041586   | 076701  | 068702   | .039907 | .041407   | .033941 | .030179  | 006507   |
| 27 |         |          | 164403  |          | 014901  |           | .021775 | .020068  | 003686   |
| 28 | 013999  | .003740  | 157113  | 145460   | .025659 | .038778   | 024956  | 020821   | .005594  |
| 29 | .078023 |          | 098107  |          | .023757 | .040292   |         | 064508   | .015225  |
| 30 | .130132 | .125100  | 054972  | 046424   | 092814  | 082955    | 098636  | 085235   | .020217  |

#### QUADRATURE SPECTRUM

| К      | U, N    | U.RHO(W) | V.N     | V,RHO(W) | W.N     | W,RHO(W) | T, N    | T.RHO(W) | N,RHD(W) |
|--------|---------|----------|---------|----------|---------|----------|---------|----------|----------|
|        | 10E-02  | 10E-02   | 10E-02  | 10E-03   | 10E-02  | 10E-03   | 10E-02  | 10E-03   | 10E-03   |
| 1      | 943422  | 155640   | .148478 | 041174   | 131151  | 311653   | .262565 | .425141  | 475895   |
| 2      | 893506  | 154835   | .180396 | .003227  | 303677  | 548104   | .296671 | .476808  | 561607   |
| 2      | .058860 | 016455   | .223460 | .373953  | 295374  | 424999   | 020661  | 037878   | .011599  |
| 4      | .910596 | .110505  | .005000 | .241845  | 125344  | 130748   | 337354  | 549155   | .606215  |
| 5      | .425591 | .048132  | 163930  | 197739   | 020919  | 014462   | 218057  | 354105   | .395628  |
| 6      | .035503 | .001461  | .028850 | .022237  | 087084  | 137218   | 111164  | 178924   | .201885  |
| 6<br>7 | 042432  | 007049   | .115617 | .219424  | 166320  | 271306   | 063062  | 100828   | .118969  |
| 8      | 129945  | 020282   | .153412 | .300233  | 097438  | 164775   | .014222 | .023218  | 021654   |
| 9-11   | 080506  | 019707   | .039232 | .042995  | .000509 | 008865   | 031095  | 050402   | .057512  |
| 12-14  | 157019  | 031796   | 123266  | 231083   | .071424 | .143186  | 007530  | 012862   | .010307  |
| 15-21  | 031882  | 009175   | .035310 | -079107  | 012262  | 015660   | 019952  | 032683   | .033241  |
| 22-30  |         |          |         |          |         | 008449   |         |          | 015484   |

RUN NO. 82D 16M 11-02-62 0800-0915 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

## NORMALIZED AUTOCOVARIANCE

| M         | U                   | V                                       | W                  | Ţ                    | A                  | 8494                     |
|-----------|---------------------|---|--------------------|----------------------|--------------------|--------------------------|
|           | 0.12980             | 0.1000.                                 |                    |                      | N                  | RHO(W)                   |
|           | 10E 00              | 0.10091<br>10E 00                       | 0.24038            | 0.17213              | 0.41417            | 0.14341                  |
|           | 102 00              | 105 00                                  | 10E-01             | 10E-01               | 10E 00             | 10E-01                   |
| 0         | 1.000000            | 1.000000                                | 1.000000           | 1 000000             |                    |                          |
| 1         | • 396060            | .469443                                 | .062519            | 1.000000             | 1.000000           | 1.000000                 |
| 2         | - 024986            | .185110                                 | 094002             | • 606647<br>• 343602 | •679427            | •646925                  |
| 3         | 001113              | .128509                                 | .027737            | • 228449             | .391177            | .359475                  |
| 4         | 028431              | .093122                                 | -143182            | .169679              | • 250986           | • 242484                 |
| 5         |                     |   |                    | ,                    | .192431            | •212054                  |
| 6         | 049326              | •093531                                 | .025250            | .061578              | .078243            | 1000/2                   |
| 7         | 086221              | .050129                                 | 101406             | 052624               | 076647             | •109942<br>••042206      |
| 8         | 101752<br>036741    | 075969                                  | 056685             | 154532               | 133424             | 107933                   |
| 9         | 167318              | 168438                                  | 029874             | 154799               | 114589             | 090514                   |
| -         | *101318             | 182787                                  | 061916             | 129194               | 124095             | 095200                   |
| 10        | 128764              | 170624                                  | - 334000           |                      |                    |                          |
| 11        | 041050              | 147539                                  | 236888<br>071617   | 116647               | 136128             | 107552                   |
| 12        | 136970              | 171623                                  | 058576             | 126770               | 125940             | 107126                   |
| 13        | • 002009            | 202310                                  | 014944             | 142877               | 187851             | 175522                   |
| 14        | •131661             | 228742                                  | 093482             | 025735<br>014737     | 159594             | 137034                   |
|           |                     |   |                    | 014/3/               | 152779             | 141282                   |
| 15        | • 143643            | 121635                                  | 015647             | .039797              | 111169             | 10144                    |
| 16<br>17  | •149080             | 066963                                  | .059520            | .014284              | 093798             | 101643                   |
| 18        | .046703             | 034809                                  | 119812             | 056985               | 187986             | 100108<br>202449         |
| 19        | •041653<br>-•059566 | 086133                                  | 161221             | 085836               | 235335             | 246525                   |
| • '       | 074200              | 115754                                  | .053287            | 076729               | 204834             | 205509                   |
| 20        | 153043              | 041431                                  |                    |                      |                    | 0203307                  |
| 21        | 184530              | •041631<br>•074027                      | -268423            | 167556               | 186177             | 188464                   |
| 22        | 159166              | .028362                                 | 035884             | 232594               | 180509             | 191873                   |
| 23        | 210195              | .001246                                 | 228266<br>036860   | 343627               | 151635             | 194920                   |
| 24        | 198244              | .041007                                 | •157862            | 332134               | 086756             | 140608                   |
| 955       |                     |   | •131002            | 238525               | .012186            | 043515                   |
| 25        | 243744              | .066576                                 | 010964             | 213478               | 001000             |                          |
| 26        | 177240              | .085001                                 | 004015             | 154626               | .001298<br>001475  | 062735                   |
| 27<br>28  | 065067              | .067809                                 | .058018            | 060123               | .017193            | 063722                   |
| 29        | • 095806            | .012102                                 | .068432            | .050241              | .003456            | 034227<br>026024         |
| .,        | . 265143            | -012671                                 | •037991            | .096858              | 022186             | 036734                   |
| 30        | .167726             | - 072240                                |                    |                      |                    | *030134                  |
|           | • 10/120            | ~-072368                                | .005750            | .131644              | 018822             | 021617                   |
|           |                     |   |                    |                      |                    |                          |
| POWER S   | PECTRUM             |   |                    |                      |                    |                          |
|           |                     |   |                    |                      |                    |                          |
| K         | U                   | V                                       | W                  | T                    | N                  | Buotin                   |
|           |                     |   |                    | ·                    | 14                 | RHO(W)                   |
|           | 10E-01              | 105 00                                  |                    |                      |                    |                          |
|           | 105-01              | 10E-01                                  | 10E-02             | 10E-02               | 10E-01             | 10E-02                   |
| 0         | .015380             | .014449                                 | 004455             |                      |                    | 02                       |
| 1         | .092397             | .115746                                 | •006400            | .051475              | .104893            | .040939                  |
| 2         | .069558             | .134735                                 | .094946            | .305739              | .786479            | .286289                  |
| 3         | .104701             | .125926                                 | .133947<br>.149665 | • 228281             | .709403            | .237878                  |
| 4         | . 137664            | .070778                                 | -108187            | •216352              | •557384            | .174984                  |
| -         |                     |   | ******             | .219640              | • 435690           | <ul><li>138130</li></ul> |
| 5         | •074892             | .042353                                 | .063469            | .121968              | 224420             |                          |
| 6         | .043789             | .035961                                 | .044768            | .062068              | •334630<br>•197758 | -105820                  |
| 7         | •073557             | .035201                                 | .041143            | • 063032             | ·197758            | .063185                  |
| 8<br>9-11 | • 084931<br>058534  | .035870                                 | .064854            | .050209              | 138017             | • 052639<br>• 045843     |
| - I I     | .058534             | -048680                                 | .080470            | .042103              | .089157            | • 033562                 |
| 12-14     | .054818             | 033434                                  |                    |                      |                    | *033302                  |
| 15-21     | •041713             | <ul><li>033476</li><li>026998</li></ul> | .125414            | .060109              | .127266            | .049967                  |
| 22-30     | .030500             | .020888                                 | -131832            | .029820              | .057097            | .022395                  |
| _         |                     | * AF AG 9 9                             | •116732            | .025739              | .043678            | .017484                  |

RUN NO. 82D 40M 11-02-62 0800-0915 EST

## GROSS STATISTICS

| 2 CI<br>TRANSITIONAL<br>WATER/LAND   | WIND SP<br>Sigma a<br>Sigma e  | 5.2 DEG   | WIND DIRE<br>SOLAR RAI<br>NET RADIA  | DIATION 0.53   |
|--|--|---|--|--|
|  | WITH NO<br>RUNNING MEAN  | WITH 301 POINT<br>RUNNING MEAN  | WITH 61 POINT<br>RUNNING MEAN  | 301 PT RUN MEAN<br>10 PT BLOCK AVG   |
| VARIANCES  |  |   |  |  |
| U<br>V<br>H<br>T<br>N<br>RHO(W)  | 0.50928E 00<br>0.18449E-00<br>0.11205E-00<br>0.29055E-01<br>0.17246E 01<br>0.52679E-01   | 0.19981E-00<br>0.11837E-00<br>0.92472E-01<br>0.11603E-01<br>0.38959E-00<br>0.12545E-01  | 0.14206E-00<br>0.92382E-01<br>0.85183E-01<br>0.63938E-02<br>0.18142E-00<br>0.59343E-02   | 0.13376E-00<br>0.70745E-01<br>0.40714E-01<br>0.86718E-02<br>0.31883E-00<br>0.10190€-01   |
| GUSTINESS RATIO  | <b>S</b>   |   |  |  |
| U<br>V<br>H  | 0.13777<br>0.08292<br>0.06462  | 0.08629<br>0.06642<br>0.05870   | 0.07276<br>0.05868<br>0.05634  | 0.07061<br>0.05135<br>0.03895  |
| COVARIANCES  |  |   |  |  |
| U,V<br>U,W<br>U,T<br>V,M<br>V,T<br>H,T<br>U,N<br>U,RHO(W)<br>V,N<br>V,RHO(W)         | 0.18648E-01<br>-0.73991E-01<br>-0.73055E-01<br>-0.17367E-02<br>0.25149E-01<br>0.25772E-01<br>-0.53486E 00<br>-0.99657E-01<br>0.68817E-01<br>0.15673E-01<br>0.86071E-01 | -0.54775E-03<br>-0.39634E-01<br>-0.26258E-01<br>-0.10653E-01<br>0.45610E-02<br>0.15624E-01<br>-0.65052E-01<br>-0.15255E-01<br>0.98288E-02<br>0.24161E-02<br>0.63158E-01 | 0.74510E-02<br>-0.31009E-01<br>-0.14422E-01<br>-0.84706E-02<br>0.19178E-02<br>0.11721E-01<br>-0.27093E-01<br>-0.69873E-02<br>-0.93835E-02<br>-0.11650E-02<br>0.51642E-01 | 0.22216E-02<br>-0.28006E-01<br>-0.20698E-01<br>-0.67210E-02<br>0.30191E-02<br>0.10691E-01<br>-0.56421E-01<br>-0.12866E-01<br>0.11700E-01<br>0.24325E-02<br>0.42256E-01 |
| W,RHO(W)<br>T,N<br>T,RHO(W)<br>N,RHO(W)  | 0.18578E-01<br>0.11429E-00<br>0.23727E-01<br>0.29939E-00   | 0.13017E-01<br>0.34104E-01<br>0.76064E-02<br>0.69119E-01  | 0.10463E-01<br>0.16897E-01<br>0.38880E-02<br>0.32367E-01   | 0.87798E-02<br>0.27006E-01<br>0.59346E-02<br>0.56449E-01   |
| WE   | 0.65493E-01  | 0.24254E-01   | 0.160595-01  |  |
| NORMALIZED COVA  | RIANCES  |   |  |  |
| U.V<br>U.W<br>U.T<br>V.W<br>V.T<br>W.T   | 0.06084<br>-0.30974<br>-0.60056<br>-0.01208<br>0.34349<br>0.45169  | -0.00356<br>-0.29157<br>-0.54534<br>-0.10182<br>0.12307<br>0.47698  | 0.06504<br>-0.28188<br>-0.47851<br>-0.09549<br>0.07891<br>0.50226  | 0.02284<br>-0.37949<br>-0.60773<br>-0.12523<br>0.12189<br>0.56896  |
| U.N<br>U.RHO(W)<br>V.N<br>V.RHO(W)<br>W.N<br>W.RHO(W)<br>T.N<br>T.RHO(W)<br>N.RHO(W) | -0.57072<br>-0.60843<br>0.12200<br>0.15898<br>0.19580<br>0.24182<br>0.51057<br>0.60648<br>0.99329  | -0.23315<br>-0.30469<br>0.04577<br>0.06270<br>0.33275<br>0.38218<br>0.50724<br>0.63047<br>0.98869   | -0.16876<br>-0.24065<br>-0.07248<br>-0.04976<br>0.41542<br>0.46535<br>0.49612<br>0.63119<br>0.98647  | -0.27321<br>-0.34849<br>0.07790<br>0.09060<br>0.37088<br>0.43106<br>0.51360<br>0.63134<br>0.99037  |

RUN NO. 82D 40M 11-02-62 0800-0915 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| М  |   | COVARIANCE  |   |   |  |   |
|--|---|---|---|---|--|---|
|  | U,V   | U. W  | U, T  | V,W   | V,T  | W, T  |
|  |   |   | •••   | -11   |  |   |
|  | 0.11461   | 0.11001   | 0.30147   | 0.88704   | 0.24309  | 0.23332   |
|  | 10E 00  | 10E 00  | 10E-01  | 10E-01  | 10E-01   | 10E-01  |
|  |   |   |   |   |  |   |
| 0  | .064823   | 282083  | 478419  | 095385  | .078881  | .502551   |
| 1  | .063654   | 261719  | 450565  | 078750  | .056901  | .441941   |
| 2  | .068806   | 221578  | 396431  | 056875  | .022313  | .347317   |
| 3  | .076035   | 181215  | 339621  | 038456  | 010427   | . 269625  |
| 4  | .072178   | 155245  | 286116  | 023888  | 023541   | .207454   |
| -  | 05/7/1  | 125524  | 22/220  | 0120/0  | 021015   | 150/10  |
| 5<br>6   | .054741<br>.030630  | 125536<br>094095  | 236228<br>195046  | 012049<br>.000086   | 021935<br>010213   | .158410<br>.121361  |
| 7  | .004746   | 052581  | 158457  | .012309   | 000145   | .080464   |
| 8  | 015567  | 017587  | 119082  | .024969   | .010855  | .035650   |
| 9  | 026364  | .008302   | 077861  | .038033   | .013745  | 009103  |
| •  | ***************************************   |   |   |   |  | •   |
| 10   | 028763  | .032581   | 037373  | .032840   | .002569  | 040513  |
| 11   | 024228  | .052641   | .001192   | .021089   | 014790   | 058648  |
| 12   | 010353  | .075774   | .040558   | .007197   | 031167   | 077567  |
| 13   | .006188   | .091793   | .076784   | 010752  | 042835   | 086733  |
| 14   | .004816   | .091387   | .106815   | 019269  | 041945   | 093293  |
|  |   |   |   |   |  |   |
| 15   | 012562  | .082228   | .134940   | 006953  | 028105   | 099487  |
| 16   | 025573  | .077481   | .158675   | .000156   | 014976   | 102557  |
| 17   | 027660  | .078116   | .176357   | .001825   | 018586   | 106639  |
| 18   | 032212  | .085674   | .189857   | .005426   | 020692   | 114367  |
| 19   | 030541  | .087574   | .199508   | .005133   | 021627   | 123416  |
|  | 030704  | 001007  | 202052  | 001770  | 010222   | 120/15  |
| 20   | 029704<br>036906  | .081807   | .202052   | .001679   | 019232   | 139415  |
| 21<br>22   | 040876  | .070587<br>.064909  | .203036<br>.200220  | .004143<br>.004021  | 010330<br>002946   | 155800<br>171498  |
| 23   | 040000  | .076979   | .204887   | .007454   | 004692   | 177399  |
| 24   | 040269  | .090009   | .204453   | .015691   | 002391   | 156715  |
|  | *******   | •0,000,   | •   | •01,071   | ***************************************  | •••   |
| 25   | 044190  | .092710   | .197843   | .026675   | .007609  | 125363  |
| 26   | 046515  | .091173   | .191280   | .038124   | .025189  | 106625  |
| 27   | 041044  | .083930   | .188504   | .047474   | .036873  | 099911  |
| 28   | 043414  | .078105   | .184505   | .053509   | .041940  | 102282  |
| 29   | 039785  | .073361   | .172270   | .053843   | .035236  | 103958  |
|  |   |   |   |   |  |   |
| 30   | 030493  | .057976   | .151644   | .046079   | .021903  | 095265  |
| 31   | 016015  | .039561   | .127134   | .030138   | .008813  | 074548  |
| 32   | .000717   | .030732   | .100476   | .012450   | .000180  | 062402  |
| 33   | .021423   | .022267   | .080908   | 002521  | 004570   | 059764  |
| 34   | .035506   | .026322   | .065783   | 010633  | 001136   | 050572  |
| 35   | .040167   | .034757   | .051335   | 018724  | .004159  | 039174  |
| 36   | .035558   | .033873   | .035851   | 013896  | .014159  | 018458  |
| 37   | .028630   | .023187   | .017532   | 002554  | .023778  | .016298   |
| 38   | .027560   | .008727   | 001958  | 005694  | .023566  | .037529   |
| 39   | .033010   | .001365   | 024740  | 018011  | -019400  | .042663   |
|  |   |   |   |   |  |   |
| 40   | .032654   | 005685  | 052337  | 030207  | .010679  | .041708   |
| 41   | .027366   | 013405  | 0.77004   |   |  |   |
| • •  |   | _   | 077806  | 038380  | .000484  | .042651   |
| 42   | .025596   | 027800  | 092202  | 034915  | 007969   | .056140   |
| 42<br>43   | .025596<br>.021611  | 027800<br>039257  | 092202<br>105771  | 034915<br>019767  | 007969<br>016083   | .056140   |
| 42   | .025596   | 027800  | 092202  | 034915  | 007969   | .056140   |
| 42<br>43<br>44   | .025596<br>.021611<br>.020621   | 027800<br>039257<br>042839  | 092202<br>105771<br>124378  | 034915<br>019767<br>006029  | 007969<br>016083<br>020821   | .056140<br>.071908<br>.085535   |
| 42<br>43<br>44<br>45   | .025596<br>.021611<br>.020621   | 027800<br>039257<br>042839  | 092202<br>105771<br>124378<br>134845  | 034915<br>019767<br>006029<br>006370  | 007969<br>016083<br>020821<br>018093   | .056140<br>.071908<br>.085535   |
| 42<br>43<br>44<br>45<br>46   | .025596<br>.021611<br>.020621<br>.019788<br>.013105   | 027800<br>039257<br>042839<br>046978<br>051271  | 092202<br>105771<br>124378<br>134845<br>128682  | 034915<br>019767<br>006029<br>006370<br>016191  | 007969<br>016083<br>020821<br>018093<br>013976   | .056140<br>.071908<br>.085535<br>.097469<br>.094685   |
| 42<br>43<br>44<br>45<br>46<br>47   | .025596<br>.021611<br>.020621<br>.019788<br>.013105<br>.010654  | 027800<br>039257<br>042839<br>046978<br>051271<br>058035  | 092202<br>105771<br>124378<br>134845<br>128682<br>120598  | 034915<br>019767<br>006029<br>006370<br>016191<br>012694  | 007969<br>016083<br>020821<br>018093<br>013976<br>017089   | .056140<br>.071908<br>.085535<br>.097469<br>.094685<br>.088141  |
| 42<br>43<br>44<br>45<br>46<br>47<br>48   | .025596<br>.021611<br>.020621<br>.019788<br>.013105<br>.010654<br>.010706   | 027800<br>039257<br>042839<br>046978<br>051271<br>058035<br>063093  | 092202<br>105771<br>124378<br>134845<br>128682<br>120598<br>109163  | 034915<br>019767<br>006029<br>006370<br>016191<br>012694<br>.003591   | 007969<br>016083<br>020821<br>018093<br>013976<br>017089<br>018716   | .056140<br>.071908<br>.085535<br>.097469<br>.094685<br>.088141  |
| 42<br>43<br>44<br>45<br>46<br>47   | .025596<br>.021611<br>.020621<br>.019788<br>.013105<br>.010654  | 027800<br>039257<br>042839<br>046978<br>051271<br>058035  | 092202<br>105771<br>124378<br>134845<br>128682<br>120598  | 034915<br>019767<br>006029<br>006370<br>016191<br>012694  | 007969<br>016083<br>020821<br>018093<br>013976<br>017089   | .056140<br>.071908<br>.085535<br>.097469<br>.094685<br>.088141  |
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| 42<br>43<br>44<br>45<br>46<br>47<br>48<br>49<br>50<br>51<br>52                   | .025596<br>.021611<br>.020621<br>.019788<br>.013105<br>.010654<br>.010706<br>.013349<br>.016165<br>.019302<br>.025176   | 027800<br>039257<br>042839<br>046978<br>051271<br>058035<br>063093<br>062116<br>056310<br>049344<br>045167  | 092202<br>105771<br>124378<br>134845<br>128682<br>120598<br>109163<br>090314<br>071586<br>059934<br>052690  | 034915<br>019767<br>006029<br>006370<br>016191<br>012694<br>.003591<br>.013157  | 007969<br>016083<br>020821<br>018093<br>013976<br>017089<br>018716<br>016299<br>014448<br>012896<br>012951   | .056140<br>.071908<br>.085535<br>.097469<br>.094685<br>.088141<br>.094205<br>.096067  |
| 42<br>43<br>44<br>45<br>46<br>47<br>48<br>49<br>50<br>51<br>52<br>53<br>54       | .025596<br>.021611<br>.020621<br>.019788<br>.013105<br>.010654<br>.010706<br>.013349<br>.016165<br>.019302<br>.025176<br>.024571<br>.012460   | 027800<br>039257<br>042839<br>046978<br>051271<br>058035<br>063093<br>062116<br>056310<br>049344<br>045167<br>039795  | 092202<br>105771<br>124378<br>134845<br>128682<br>120598<br>109163<br>090314<br>071586<br>059934<br>052690<br>048697<br>050471  | 034915<br>019767<br>006029<br>006370<br>016191<br>012694<br>.003591<br>.013157<br>.012240<br>001602<br>014011<br>009832   | 007969<br>016083<br>020821<br>018093<br>013976<br>017089<br>018716<br>016299<br>014448<br>012896<br>012951<br>010367<br>013379                               | .056140<br>.071908<br>.085535<br>.097469<br>.094685<br>.088141<br>.094205<br>.096067<br>.083647<br>.063850<br>.041464<br>.025844  |
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| 42<br>43<br>44<br>45<br>46<br>47<br>48<br>49<br>50<br>51<br>52<br>53<br>54       | .025596<br>.021611<br>.020621<br>.019788<br>.013105<br>.010654<br>.010706<br>.013349<br>.016165<br>.019302<br>.025176<br>.024571<br>.012460   | 027800<br>039257<br>042839<br>046978<br>051271<br>058035<br>06310<br>062116<br>056310<br>049344<br>045167<br>039499<br>037765   | 092202<br>105771<br>124378<br>134845<br>128682<br>120598<br>109163<br>090314<br>071586<br>059934<br>052690<br>048697<br>050471<br>052713                              | 034915<br>019767<br>006029<br>006370<br>016191<br>012694<br>.003591<br>.013157<br>.012240<br>001602<br>014011<br>009832<br>004085<br>.000696<br>002914                      | 007969016083020821018093013976017089018716016299014448012896012951010367013379014156009350   | .056140<br>.071908<br>.085535<br>.097469<br>.094685<br>.088141<br>.094205<br>.096067<br>.083647<br>.063850<br>.041464<br>.025844<br>.023159                                 |
| 42<br>43<br>44<br>45<br>46<br>47<br>49<br>50<br>51<br>52<br>53<br>54<br>55<br>57 | .025596<br>.021611<br>.020621<br>.019788<br>.013105<br>.010654<br>.010706<br>.013349<br>.016165<br>.019302<br>.025176<br>.024571<br>.012460<br>007144<br>021232<br>026161           | 027800<br>039257<br>042839<br>046978<br>051271<br>058035<br>063093<br>062116<br>056310<br>049344<br>045167<br>039499<br>037765<br>036115<br>033314<br>025893          | 092202<br>105771<br>124378<br>124378<br>128682<br>120598<br>109163<br>090314<br>071586<br>059934<br>052690<br>048697<br>050471<br>052713<br>052303<br>053252          | 034915<br>019767<br>006029<br>006370<br>016191<br>012694<br>.003591<br>.013157<br>.012240<br>001602<br>014011<br>009832<br>004085   | 007969<br>016083<br>020821<br>018093<br>013976<br>017089<br>018716<br>016299<br>012448<br>012896<br>012951<br>010367<br>013379<br>014156<br>009350<br>002312 | .056140<br>.071908<br>.085535<br>.097469<br>.094685<br>.088141<br>.094205<br>.096067<br>.083647<br>.063850<br>.041464<br>.025844<br>.023159                                 |
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| 42<br>43<br>44<br>45<br>46<br>47<br>49<br>50<br>51<br>52<br>53<br>54<br>55<br>57 | .025596<br>.021611<br>.020621<br>.019788<br>.013105<br>.010654<br>.010706<br>.013349<br>.016165<br>.019302<br>.025176<br>.024571<br>.012460<br>007144<br>021232<br>026161           | 027800<br>039257<br>042839<br>046978<br>051271<br>058035<br>063093<br>062116<br>056310<br>049344<br>045167<br>039499<br>037765<br>036115<br>033314<br>025893          | 092202<br>105771<br>124378<br>124378<br>128682<br>120598<br>109163<br>090314<br>071586<br>059934<br>052690<br>048697<br>050471<br>052713<br>052303<br>053252          | 034915<br>019767<br>006029<br>006370<br>016191<br>012694<br>.003591<br>.013157<br>.012240<br>001602<br>014011<br>009832<br>004085   | 007969<br>016083<br>020821<br>018093<br>013976<br>017089<br>018716<br>016299<br>012448<br>012896<br>012951<br>010367<br>013379<br>014156<br>009350<br>002312 | .056140<br>.071908<br>.085535<br>.097469<br>.094685<br>.088141<br>.094205<br>.096067<br>.083647<br>.063850<br>.041464<br>.025844<br>.023159                                 |
| 42<br>43<br>44<br>45<br>46<br>47<br>48<br>49<br>50<br>51<br>52<br>55<br>57<br>58 | .025596<br>.021611<br>.020621<br>.019788<br>.013105<br>.010654<br>.010706<br>.013349<br>.016165<br>.019302<br>.025176<br>.024571<br>.012460<br>007144<br>021232<br>026161<br>027306 | 027800<br>039257<br>042839<br>046978<br>051271<br>058035<br>063093<br>062116<br>056310<br>049344<br>045167<br>039499<br>037765<br>03314<br>025893<br>025893<br>015087 | 092202<br>105771<br>124378<br>134845<br>128682<br>120598<br>109163<br>090314<br>071586<br>05934<br>052690<br>048697<br>050471<br>052713<br>052303<br>053252<br>051432 | 034915<br>019767<br>006029<br>006370<br>016191<br>012694<br>.003591<br>.013157<br>.012240<br>001602<br>014011<br>009832<br>004085<br>.000696<br>002914<br>002815<br>.001109 | 007969016083020821018093013976017089018716016299014448012896012951010367013379014156009350002312 .005759   | .056140<br>.071908<br>.085535<br>.097469<br>.094685<br>.088141<br>.094205<br>.096067<br>.083647<br>.063850<br>.041464<br>.025844<br>.023159<br>.024587<br>.019180<br>003538 |

RUN NC. 82D 40M 11-02-62 0800-0915 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| М          | U, N             | U,RHO(W)      | V, N                                    | V,RHO(W)                                | W.N     | W, RHO(W)      | T.N     | T.RHO(M) | N.RHO(W) |
|------------|------------------|---------------|---|---|---------|----------------|---------|----------|----------|
| •••        | <b>O y</b> · · · | O JANIO ( M ) | • | *************************************** |         | w,             | • • • • |          |          |
|            | 0.14041          | 0 30067       | 0 12050                                 | 0 22422                                 | 0 12620 | 0 22491        | 0 34044 | 0.61608  | 0.32822  |
|            | 0.16061          | 0.29047       |   |   | 0.12430 | 0.22481        | 0.34064 |          |          |
|            | 10E 00           | 10E-01        | 10E 00                                  | 10E-01                                  | 10E 00  | 10E-01         | 10E-01  | 10E-02   | 10E-01   |
|            |                  |               |   |   |         |                |         |          | 120000   |
| 0          | 168850           | 240630        | 072315                                  | 049675                                  | .415542 | . 465663       | •496216 | .631157  | . 986465 |
| 1          | 160701           | 227998        | 064558                                  | 047160                                  | .361666 | .406078        | .433361 | .548902  | .867670  |
| 2          | 141110           | 200450        | 051868                                  | 042310                                  | .278196 | . 313766       | .335869 | .425226  | .693710  |
| 3          |                  | 172941        |   |   | .219406 | .246717        | .257359 | .326428  | .563142  |
| 4          |                  | 152442        |   |   | .171063 | . 191931       | .189746 | .243255  | .464973  |
| •          | •110723          | ** 75 445     | - 0 0 2 0 7 1                           | 033034                                  |         | • 1 7 1 7 7 4  |         | ******   | ******** |
|            | - 003005         | - 120040      | - 022271                                | - 022040                                | 127046  | . 144409       | 1 27451 | 170707   | .378564  |
| 5          |                  | 128060        |   |   | .127845 |                | .137451 | .178707  |          |
| 6          |                  | 101695        |   |   | .083915 | .098034        | .097070 | .129720  | -292297  |
| 7          |                  | 075287        |   |   | .037137 | .048515        | .061439 | .088413  | .207273  |
| 8          | 030395           | 049467        | .013011                                 | .013602                                 | 003378  | .003690        | .029080 | .050700  | .133347  |
| 9          | 013294           | 026430        | .019581                                 | .020185                                 | 035176  | 032987         | .002559 | .018573  | .081136  |
|            |                  |               |   |   |         |                |         |          |          |
| 10         | .002435          | 004836        | .015993                                 | .014795                                 | 059492  | 060423         | 019952  | 009922   | .036197  |
| 11         | .013920          | .012512       |   |   | 074350  |                |         |          |          |
| 12         | .023705          |               |   |   | 087537  |                |         |          |          |
| 13         | .036373          |               |   |   | 094181  |                |         |          |          |
|            |                  |               |   |   |         |                |         |          |          |
| 14         | .049395          | •003836       | 003245                                  | 010930                                  | 101689  | 108410         | 100293  | 120707   | 134050   |
|            |                  |               |   |   |         |                |         |          |          |
| 15         | .059383          | .078045       |   |   | 105239  |                |         |          |          |
| 16         | .069089          | .091232       | .015025                                 |   | 104158  |                |         |          |          |
| 17         | .075708          | .100475       | .017585                                 | .011577                                 | 099729  | 109332         | 135312  | 168310   | 214818   |
| 18         | .083447          | .110051       | .030265                                 |   | 095897  |                |         |          |          |
| 19         | .087840          | .115920       | .046412                                 |   | 096297  |                |         |          |          |
|            |                  |               |   |   |         |                |         |          |          |
| 20         | .083919          | .112894       | .054946                                 | .045253                                 | 101180  | 117129         | 118477  | - 141700 | 258710   |
|            |                  |               |   |   |         |                |         |          |          |
| 21         | .077463          | •107370       | .058592                                 |   | 108607  |                |         |          |          |
| 22         | .070583          | -101069       | .056652                                 |   | 118803  |                |         |          |          |
| 2 <b>3</b> | .070847          | .102052       | .053668                                 | .046852                                 | 125461  | 145449         | 125614  | 170760   | 286543   |
| 24         | .068466          | .099829       | .052082                                 | .046086                                 | 114294  | 131580         | 121826  | 164497   | 285119   |
|            |                  |               |   |   |         |                |         |          |          |
| 25         | .066348          | .096857       | .048192                                 | -044620                                 | 091450  | 105698         | 119007  | 157768   | 280228   |
| 26         | .068935          | .097839       | .040487                                 |   | 075217  |                |         |          |          |
| 27         | .071384          | .099561       | .032853                                 |   | 067496  |                |         |          |          |
|            |                  |               |   |   |         |                |         |          |          |
| 28         | .072544          | •099969       | .024743                                 |   | 064779  |                |         |          |          |
| 29         | .064701          | •090486       | .012585                                 | .018150                                 | 059313  | 072695         | 100/0/  | 128731   | 218114   |
|            |                  |               |   |   |         |                | 1.00    |          |          |
| 30         | .050217          | .073295       | .001218                                 | .005372                                 | 045626  | 058582         | 076745  | 101621   | 187788   |
| 31         | .036691          | .056541       | 007565                                  | 004899                                  | 027744  | 038617         | 045121  | 065731   | 149504   |
| 32         | .021549          | .038094       | 011139                                  | 009613                                  | 015219  | 025287         | 019897  | 037857   | 113722   |
| 33         | .010294          |               |   |   | 008909  |                |         |          |          |
| 34         | .002347          |               |   |   | .002565 |                |         |          |          |
| 34         | *002341          | *014453       | - 1004203                               | ********                                | .002303 | - 8 00 1 4 4 0 | .013304 | .000407  |          |
| 35         | 000/0/           | 007333        | 001007                                  | 000550                                  | 015720  | 004400         | 033004  |          |          |
| 35         | 002696           |               | 001807                                  |   | .015739 | .006423        | .033994 |          | 011774   |
| 36         |                  | 002341        |   | .003395                                 | .023692 | .017410        | .049328 | .036879  | .016495  |
| 37         |                  | 014969        |   | .003382                                 | .037671 | .036313        | .063752 | .055489  | .034707  |
| 38         | 033659           | 030607        | 008773                                  | 003517                                  | .045321 | .047526        | .073064 | .069691  | .047076  |
| 39         | 043989           | 044024        | 016589                                  | 011236                                  | .050311 | .053223        | .080453 | .080692  | - 060646 |
|            |                  |               |   |   |         |                |         |          |          |
| 40         | 053183           | 057385        | 021788                                  | 017275                                  | .048166 | .051117        | .093240 | .095566  | .077291  |
| 41         |                  | 072998        |   |   | .044103 | .047774        | .101135 | .105786  | .085950  |
| 42         |                  | 083188        |   |   | .044791 | .050966        | .098918 | .107264  | .081083  |
| 43         |                  | 092443        |   |   | .049733 | . 058446       | .092535 | .105598  | .067958  |
|            |                  |               |   |   |         |                |         |          |          |
| 44         | -•000531         | 102423        | 037204                                  | 030437                                  | .056739 | .067176        | .080553 | .097758  | -052626  |
| , -        |                  |               |   | 0.00-0-                                 |         |                | 03011   |          |          |
| 45         |                  | 105149        |   |   | .064679 | .076485        | .070161 | .090471  | -042063  |
| 46         |                  | 097272        |   |   | .062781 | .074078        | .058189 | .079020  | .031944  |
| 47         | 073642           | 088555        | 035247                                  | 034587                                  | .056857 | .067508        | .043886 | .064040  | .018599  |
| 48         | 066741           | 080326        | 021261                                  | 022380                                  | .056381 | .068159        | .030627 | .048355  | .002968  |
| 49         | 058319           | 069341        | 008066                                  | 010083                                  | .060389 | .071785        | .019766 | -035479  | 013830   |
|            |                  |               |   |   |         |                |         |          |          |
| 50         | 049741           | 058311        | 002454                                  | 005001                                  | .053376 | .063291        | .004032 | .019461  | - 030064 |
| 51         |                  |               |   |   |         |                |         |          |          |
|            |                  | 048707        |   |   | .037213 |                |         | .002618  |          |
| 52         |                  | 039173        |   |   | .017007 |                |         | 009767   |          |
| 53         |                  | 031080        |   |   | .001590 |                |         | 012328   |          |
| 54         | 021293           | 028396        | 008490                                  | 010518                                  | 001064  | .003666        | 020475  | 009113   | 047503   |
|            |                  |               |   |   |         |                |         |          |          |
| 55         | 021889           | 029366        | 008779                                  | 010696                                  | .001026 | .005679        | 019284  | 007174   | 043450   |
| 56         |                  |               |   |   | 002602  |                |         | 008929   |          |
| 57         |                  |               |   |   | 011345  |                |         |          |          |
| 58         |                  | 009578        | .002317                                 |   | 026867  |                |         |          |          |
| 59         | .014169          | .005299       | .008462                                 |   | 041032  |                |         |          |          |
| 77         | *******          | •007677       | .000702                                 | *010200                                 |         | -+043611       | 030441  | -•030093 | 052432   |
|            | 001110           | 0170/         | 005347                                  | 000444                                  | 04000   | 04:05-         |         |          |          |
| 60         | .026169          | .017864       | .005267                                 | .008441                                 | 060227  | 064353         | 056918  | 050035   | 064788   |
|            |                  |               |   |   |         |                |         |          |          |

RUN NO. 82D 40M 11-02-62 0800-0915 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| M   | U,V     | U.W     | U, T     | V,W                | V, T               | W.T               |
|-----|---------|---------|----------|--------------------|--------------------|-------------------|
|     | 0.11461 | 0.11001 | 0.30147  | 0.88704            | 0.24309            | 0.23332           |
|     | 10E 00  | 10E 00  | 10E-01   | 10E-01             | 10E-01             | 10E-01            |
| 1   | 035230  | 022788  | 029141   | 010702             | 025765             | 022189            |
| 2   | 060005  | 047288  | 050708   | 021775             | 047861             | 027113            |
| 3   | 071877  | 070946  | 070388   | 038698             | 064326             | 032537            |
| 4   | 077433  | 085588  | 089484   | 048437             | 076300             | 038213            |
| 5   | 075071  | 104952  |          |                    |                    |                   |
| ,   | 075071  | 104952  | 105719   | 055757             | 091651             | 031778            |
| 6   | 062611  | 128466  | 121386   | 067558             | 102439             | 023375            |
| 7   | 049464  | 139997  | 134459   | 081788             | 111045             | 014813            |
| 8   | 044566  | 147458  | 142468   | 090069             | 115221             | 008467            |
| 9   | 040128  | 152879  | 142870   | 089131             | 113980             | 007843            |
| 10  | 036809  | 152748  | 141184   | 091235             | 112851             | 004039            |
| 11  | 043651  | 147191  | 141097   | 093514             | 120092             | 000613            |
| 12  | 055066  | 138798  | 136999   | 087559             | 130802             | 011204            |
| 13  | 063913  | 129548  | 137358   | 076658             | 133668             | 027046            |
| 14  | 068512  | 114753  | 132988   | 056317             | 128643             | 044986            |
| 15  | 066420  | 092560  | 122603   | 040792             | 113207             | 053128            |
| • • | 0.000   | 040400  | 10000    | 01//51             | 005005             |                   |
| 16  | 065255  | 060428  | 109556   | 016651             | 095895             | 050301            |
| 17  | 066517  | 038402  | 089848   | .007842            | 080593             | 051686            |
| 18  | 066882  | 020966  | 065771   | .020492            | 065408             | 052299            |
| 19  | 071684  | 003836  | 040861   | .026870            | 051775             | 045518            |
| 20  | 072822  | .016545 | 014224   | • 026202           | 043709             | 030637            |
| 21  | 067132  | .031514 | .004723  | .021838            | 038853             | 019205            |
| 22  | 059384  | .040625 | .019880  | .012262            | 030236             | 009150            |
| 23  | 040190  | .059505 | .040668  |                    | 013953             | 001112            |
|     |         |         |          | .009776            |                    |                   |
| 24  | 020342  | .074454 | .055813  | •009207            | .000377            | .012823           |
| 25  | 000989  | .082920 | .057234  | .014238            | .012352            | .032965           |
| 26  | .009474 | .089171 | .054149  | .025036            | .019659            | .043419           |
| 27  | .015828 | .087053 | .050329  | .028809            | .029342            | .041559           |
| 28  | .025713 | .070290 | .041606  | .032248            | .038227            | .029755           |
| 29  | .037807 | .050242 | .038066  | .036554            | .050464            | .018012           |
| 30  | .047444 | .039946 | .040291  | .032891            | .064906            | .018344           |
| 31  | .060872 | 061191  | 020702   | 020255             | 070000             | 010172            |
|     |         | .041181 | .039782  | •028355            | •079898            | .019132           |
| 32  | .073402 | .041889 | .038454  | .022664            | .095669            | .017575           |
| 33  | .080017 | .038336 | .035004  | •022382            | .108635            | .014202           |
| 34  | .081945 | .036552 | .029005  | .024005            | .107763            | .013417           |
| 35  | .082409 | -032028 | .022401  | .028570            | .096370            | .013173           |
| 36  | .083204 | .023379 | .020517  | .033812            | .092938            | .007611           |
| 37  | .089211 | .022466 | .022441  | .041445            | .101348            | .003677           |
| 38  | .097517 | .025915 | .023578  | .053753            | .111183            | .001353           |
| 39  | .100872 | .037514 | .023617  | .055527            | .121758            | 000974            |
| 40  | .106170 | .042648 | .024710  | .054499            | .125105            | 002394            |
| 41  | .103947 | .035898 | .025070  | .054862            | .125745            | .002183           |
| 42  | .093550 | .033173 | .030538  | .057387            | .121783            | .008612           |
|     |         |         | .037789  | .051410            | .114625            |                   |
| 43  | .081053 | .030836 | .034044  |                    |                    | .009184           |
| 44  | .065312 | .019978 | .032384  | .039935<br>.033087 | .101480<br>.085643 | .003507<br>007281 |
| 45  | .047325 | .013646 | .032364  | .033081            | • 000043           | 007261            |
| 46  | .032299 | .013353 | .025809  | .025666            | -068009            | 012118            |
| 47  | .021724 | .006701 | .005387  | .022338            | .052313            | 007649            |
| 48  | .020014 | 002425  | 015805   | .012115            | .033074            | .010756           |
| 49  | .013229 | 008896  | 029778   | 006911             | .008662            | .027465           |
| 50  | .001708 | 015536  | 035080   | 027270             | 019602             | .031133           |
|     | 011711  | 020047  | - 041025 | - 020275           | - 039144           | 017200            |
| 51  | 011711  | 029967  | 041025   | 028275             | 038166             | .017280           |
| 52  | 019160  | 050977  | 044897   | 020412             | 047285             | 006769            |
| 53  | 031246  | 069062  | 047515   | 017789             | 053423             | 023736            |
| 54  | 039087  | 080579  | 052072   | 019221             | 057705             | 035245            |
| 55  | 045110  | 083080  | 054501   | 019125             | 056517             | 042428            |
| 56  | 056506  | 073369  | 048233   | 030242             | 064042             | 033316            |
| 57  | 071486  | 067200  | 042453   | 041229             | 076930             | 025843            |
| 58  | 088554  | 068674  | 037319   | 054647             | 089244             | 018083            |
| 59  | 102204  | 069228  | 029184   | 071251             | 104499             | 012098            |
| 60  | 110052  | 055370  | 017071   | 080087             | 115056             | 017208            |
| 00  | 110002  | • 00000 | *******  |                    |                    | -011200           |

RUN NO. 82D 40M 11-02-62 0800-0915 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| М        | U, N               | U,RHO(W)           | V,N               | - H)               | W, N              | W, RHO(W)         | T.N               | T.RHO(W)          | N,RHO(W)           |
|----------|--------------------|--------------------|-------------------|--------------------|-------------------|-------------------|-------------------|-------------------|--------------------|
| .,       |                    |                    |                   |                    |                   |                   | -                 |                   |                    |
|          | 0.16061<br>10E 00  |                    | 0.12950<br>10E 00 | 0.23422<br>10E-01  | 0.12430<br>10E 00 | 0.22481<br>10E-01 | 0.34064<br>10E-01 | 0.61608<br>10E-02 | 0.32822            |
|          | 105 00             | 10E-01             | 105 00            | 136-01             | 105 00            | 105-01            | 105-01            | 105-02            | 10E-01             |
| 1        | 008329             | 013070             | 018736            | 01136              | .016096           | .010217           | .015590           |                   | 002889             |
| 2        |                    |                    | 029368            |                    | .015623           | .008975           | .010263           |                   | 001934             |
| 3        |                    |                    | 035783            |                    | .006791           | .000012           | .001674           |                   | 000344             |
| 4        |                    |                    | 037981            |                    | .003256           |                   | 002378            |                   | .000458            |
| 5        | 078483             | 089952             | 034894            | 048633             | .009600           | .002791           | 001231            | 001182            | .000250            |
| 6        | 108161             | 119293             | 033334            | 049066             | .026166           | .019038           | .001291           | .001200           | 000167             |
| 7        |                    |                    | 040130            |                    | .042555           | .034903           | 000224            | .000170           | .000127            |
| 8        | 150913             | 161424             | 048769            | 065289             | .052021           | .044538           | 005852            | 004816            | .001091            |
| 9        |                    |                    | 055952            |                    | .045218           |                   | 010796            |                   | .001952            |
| 10       | 152601             | 162828             | 060014            | 075107             | .043197           | .037956           | 010220            | 008775            | .001741            |
| 11       | 151026             | 161454             | 062802            | 078607             | .051424           | .045940           | 008487            | 007254            | .001327            |
| 12       |                    |                    | 062753            |                    | .054442           |                   | 006492            |                   | .000971            |
| 13       |                    |                    | 059113            |                    | .047431           |                   | 006508            |                   | .001214            |
| 14       | 125270             | 137095             | 054945            | 073166             | .042597           | .029595           | ~.006079          | 005210            | .001170            |
| 15       | 103796             | 115698             | 052473            | 068166             | .038340           | .024477           | 005963            | 005121            | .001149            |
| 16       | 070440             | 001 205            | 042009            | 055800             | .030594           | . 01 8234         | 008384            | 007144            | .001612            |
| 17       |                    |                    | 019926            |                    | .020396           |                   | 009750            |                   | .001675            |
| 18       |                    |                    | 000560            |                    |                   |                   | 010284            |                   | .001740            |
| 19       |                    |                    | .009791           |                    |                   |                   | 014390            |                   | .002582            |
| 20       | .033804            | .027806            | .008883           | 000559             | .000464           | 005500            | 022194            | 020053            | .004045            |
| 21       | 05/002             | 051452             | 007331            | 001001             | 003047            | 000004            | 034947            | 02/227            | 005 000            |
| 21<br>22 | .056093            | .051452            | .011538           | 001091<br>.003968  |                   |                   | 026847            |                   | .005009<br>.006299 |
| 23       | .090864            | .088851            | .014099           |                    |                   |                   | 041467            |                   | .008214            |
| 24       | .103264            | .102849            | .009779           |                    |                   |                   | 047713            |                   | .009198            |
| 25       | .108562            | .107844            | .005954           |                    |                   |                   | 048422            |                   | .009047            |
| _        |                    |                    |                   |                    |                   |                   |                   |                   |                    |
| 26       | .107713            | -106419            | .006378           | .009063            | .004062           |                   | 044245            |                   | .008282            |
| 27       | .098897            | .097697            | .010331           | .014590            | .015373           |                   | 034870<br>023205  |                   | .006425            |
| 28<br>29 | .084082<br>.076306 | .082861<br>.075316 | .016844           | .022523<br>.028713 | .015975           |                   | 008536            |                   | .004144<br>.001220 |
| 30       | .073288            | .073149            | .019610           | .030102            | .007029           | .009358           | .002005           |                   | 000717             |
|          |                    |                    |                   |                    |                   |                   |                   |                   |                    |
| 31       | .068095            | .068527            | .016040           | .029775            | .008382           | .010600           | -006039           |                   | 001497             |
| 32       | .063275            | .064107            | .012000           | .029016            | .005140           | .007124           | .009527           |                   | 002196             |
| 33       | •056630            | •057520            | .013143           | .032528            | .000637           | .002361           | .018841           |                   | 003940             |
| 34<br>35 | .042570<br>.025835 | .043774            | .012664           | .032045<br>.026029 | .002657           | .004137           | .034149           |                   | 006827<br>008887   |
| "        | *023633            | *021433            | .000170           | *020029            | .000844           | • 002 920         | .045743           | 2040370           | 000001             |
| 36       | .014703            | .016915            | .008850           | .025875            | 009161            | 006810            | .049170           | .043510           | 009293             |
| 37       | .005846            |                    | .017283           |                    | 013975            |                   | .054481           |                   | 010307             |
| 38       |                    | 000417             | -027280           |                    | 010533            |                   | .060729           |                   | 011583             |
| 39       |                    | 011429             | .041073           |                    | 009585            |                   | .060881           |                   | 011447             |
| 40       | 021936             | 020101             | .050538           | •000109            | 014394            | 013237            | .056228           | •049723           | 010449             |
| 41       | 037651             | 028703             | .052058           | .070256            | 027050            | 023390            | .048466           | .043179           | 008699             |
| 42       | 044557             | 033906             | .053859           | .071020            | 037174            | 031080            | .042312           | .037767           | 007501             |
| 43       |                    | 034921             | .055707           | .071098            | 035295            | 029497            | .036165           |                   | 006517             |
| 44       |                    | 040165             |                   |                    | 032353            |                   | .031858           |                   | 005735             |
| 45       | 054478             | 042562             | .051341           | .062024            | 033023            | 031036            | .029318           | .026193           | 005134             |
| 46       | 057447             | 046824             | .041511           | .049935            | 028316            | 027842            | .027650           | .024693           | 004816             |
| 47       |                    | 060436             |                   |                    | 019049            |                   | .026917           |                   | 004618             |
| 48       |                    | 076178             |                   |                    | 003099            | 000921            | .021636           | .019424           | 003586             |
| 49       |                    | 085942             |                   | .005191            |                   |                   | .012493           |                   | 002264             |
| 50       | 091824             | 088977             | 007396            | 010388             | .009969           | .014524           | .003620           | .002875           | 000790             |
| 51       | 097056             | 094572             | 014300            | 019914             | .003542           | .006270           | .001049           | .000501           | 000488             |
| 52       | 099593             | 097320             | 015194            | 022329             | 008809            | 009307            | .002372           | .001522           | 000815             |
| 53       | 102217             | 099908             | 020520            | 028425             | 016786            | 019619            | 002139            | 002310            | .000287            |
| 54       |                    |                    |                   | 038842             |                   |                   |                   |                   | .001761            |
| 55       | 111892             | 109841             | 035843            | 043261             | 027893            | 032869            | 009770            | 008751            | .001863            |
| 56       | 100283             | 098450             | 039280            | 047986             | 026914            | 030185            | 013342            | 011984            | .002343            |
| 57       |                    |                    |                   | 052200             |                   |                   |                   |                   | .004037            |
| 58       | 060953             | 061589             | 041646            | 054515             | 034325            | 033711            | 027441            | 024440            | .004790            |
| 59       |                    |                    |                   | 056738             |                   |                   |                   |                   | .005475            |
| 60       | 020181             | 021501             | 040756            | 058500             | 029099            | 028424            | 030539            | 026810            | .005752            |
|          |                    |                    |                   |                    |                   |                   |                   |                   |                    |

RUN NO. 82D 40M 11-02-62 0800-0915 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

### NORMALIZED AUTOCOVARIANCE

| M        | U                   | ٧                   | W                   | T                  | N                   | RHO(W)              |
|----------|---------------------|---------------------|---------------------|--------------------|---------------------|---------------------|
|          | 0.14214<br>10E 00   | 0.92417<br>10E-01   | 0.85140<br>10E-01   | 0.63941<br>10E-02  | 0.18148<br>10E 00   | 0.59361<br>10E-02   |
| •        |                     | 1 000000            |                     |                    |                     |                     |
| 0<br>1   | 1.000000<br>.858497 | 1.000000<br>.813848 | 1.000000<br>.758207 | 1.000000<br>861058 | 1.000000<br>.880154 | 1.000000<br>.878270 |
| 2        | .672382             | .579720             | .462905             | .666330            | .705824             | .699678             |
| 3        | .534736             | .410903             | .271155             | .513489            | .576120             | .564520             |
| 4        | .421027             | .288006             | .153223             | - 390820           | .480141             | .461495             |
| 5        | .321829             | .201992             | .075025             | .295340            | .394032             | .372497             |
| 6        | . 244703            | .143212             | .015962             | .227574            | .306050             | .286120             |
| 7        | .179418             | .083430             | 043010              | .177821            | .218787             | .202036             |
| 8        | .115530             | .033828             | 100921              | .131254            | -142884             | .128862             |
| 9        | .046133             | 013172              | 127748              | .085760            | .090167             | .076100             |
| 10       | 014834              | 060515              | 131742              | .041632            | .044824             | .030396             |
| 11       | 067826              | 113714              | 133070              | 011117             | 004356              | 018432              |
| 12       | 124621              | 146417              | 132586              | 062859             | 052611              | 065802              |
| 13       | 176186              | 154909              | 130292              | 111439             | 094073              | 107599              |
| 14       | 208505              | 163876              | 130263              | 158478             | 133306              | 148719              |
| 15       | 232111              | 179184              | 139246              | 203747             | 172096              | 188108              |
| 16       | 243900              | 190066              | 128902              | 231821             | 199530              | 214537              |
| 17       | 254131              | 213373              | 104490              | 251060             | 211658              | 223860              |
| 18       | 275674              | 234136              | 089691              | 263986             | 219991              | 227927              |
| 19       | 289916              | 240474              | 081972              | 279576             | 240037              | 242543              |
| 20       | 291518              | 247291              | 086078              | 295049             | 263761              | 262335              |
| 21       | 282371              | 241723              | 098269              | 305651             | 278177              | 274450              |
| 22       | 276296              | 231611              | 117526              | 310637             | 286636              | 282124              |
| 23       | 278289              | 231604              | 132373              | 309072             | 293950              | 288463              |
| 24       | 283153              | 223565              | 125126              | 293831             | 293032              | 286113              |
| 25       | 265398              | 228313              | 104628              | 271532             | 288274              | 280387              |
| 26       | 244097              | 227310              | 104327              | 251515             | 277900              | 271406              |
| 27<br>28 | 226443<br>214102    | 209076<br>178013    | 117672<br>114605    | 238994<br>221910   | 265782<br>246127    | 260592<br>241591    |
| 29       | 191555              | 140990              | 105228              | 205453             | 223256              | 218864              |
| 30       | 163092              | 092822              | 091266              | 174981             | 194427              | 186613              |
| 31       | 122428              | 048487              | 062959              | 134517             | 157977              | 145850              |
| 32       | 085777              | 017043              | 036445              | 106880             | 123260              | 108584              |
| 33       | 059346              | 004948              | 028522              | 091792             | 093316              | 078261              |
| 34       | 050423              | .005061             | 025345              | 072218             | 053474              | 043655              |
| 35       | 052208              | .006462             | 015440              | 052319             | 020337              | 006559              |
| 36       | 049605              | .013454             | .002998             | 039155             | .008219             | .021595             |
| 37       | 030188              | .025876             | .019833             | 008510             | .025584             | .041351             |
| 38       | 006532              | .039055             | .034516             | .022072            | .037341             | .055205             |
| 39       | .014869             | •042794             | .042797             | .044876            | .050758             | .069581             |
| 40       | .037289             | .034082             | .041808             | .063289            | .066748             | .087200             |
| 41       | .050977             | .021961             | .033257             | .080570            | .074751             | .096865             |
| 42       | .058776             | .011717             | .043473             | .098776            | .069866             | .092733             |
| 43       | .076107<br>.093851  | .011706<br>.028513  | .058011<br>.062867  | .119596<br>.134610 | •056499<br>•041860  | .080732<br>.065560  |
| 45       | .098325             | . 054435            | .060268             | .146086            | .032131             | •054802             |
| 46       | .091703             | .073181             | .050520             | .143189            | .023421             | .043496             |
| 47       | .079536             | .074453             | .043817             | .131241            | .011497             | .028759             |
| 48       | .070790             | .074978             | .065311             | .112211            | 003248              | .011823             |
| 49       | .057696             | .092452             | .094776             | .095477            | 019679              | 005677              |
| 50       | .044248             | .108318             | .097610             | .075559            | 035002              | 023142              |
| 51       | .043212             | .115422             | .075252             | .056435            | 041941              | 034546              |
| 52       | . 053434            | .119073             | .046460             | .042563            | 046287              | 042490              |
| 53       | .078158             | .128129             | .024959             | .042036            | 048558              | 045429              |
| 54       | .098799             | .129682             | .009783             | .050746            | 048562              | 044462              |
| 55       | .108130             | .129903             | .000468             | .054406            | 044403              | 040336              |
| 56       | .112245             | .120488             | .003751             | .051692            | 041706              | 038774              |
| 57       | .101795             | .100463             | 001359              | .043831            | 042431              | 040733              |
| 58       | .082235<br>.066523  | .068248<br>.042315  | 027069<br>055201    | .033523<br>.021672 | 043667<br>050757    | 043526<br>052415    |
| 59       |                     |                     |                     |                    |                     |                     |
| 60       | .053810             | .033172             | 066480              | .004112            | 060751              | 067115              |

RUN NO. 82D 40M 11-02-62 0800-0915 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| CO | • | P | ۶ | C. | T | RI | m |
|----|---|---|---|----|---|----|---|
|    |   |   |   |    |   |    |   |

| K         | U•V                | U.W              | U•T              | V. W             | V,T     | W,T     |
|-----------|--------------------|------------------|------------------|------------------|---------|---------|
|           | 10E-02             | 108-02           | 10E-02           | 10E-02           | 10E-03  | 10E-02  |
| 0         | .008481            | 005022           | 012829           | 002408           | 018909  | .008889 |
| ĭ         | .082230            | 345667           | 227795           | 053193           | 085420  | .123623 |
| 2         | .194403            | 609519           | 362628           | 098690           | 026075  | .202249 |
| 3         | . 265064           | 666521           | 366100           | 098640           | .167143 | .222812 |
| 4         | .122127            | 440254           | 173391           | 026994           | .287768 | .131484 |
| 5         | .034834            | 325756           | 085492           | 048138           | .161099 | .087249 |
| 6         | .094705            | 242124           | 060287           | 127475           | .028522 | .073580 |
| 7-8       | .082132            | 121436           | 029254           | 086190           | 004921  | .054976 |
| 9-11      | .006531            | 019858           | 024960           | 042611           | .074072 | .021417 |
| 12-15     | 059280             | 027834           | 014773           | .009825          | .183485 | .020031 |
| 16-20     | 001876             | 014594           | 006616           | 020684           | .047522 | -013810 |
| 21-27     | 000687             | 022177           | 002548           | 004605           | .032604 | .005347 |
| 28-36     | • 002992           | 002343           | 001885           | 004414           | .003538 | .003848 |
| 37-47     | .000964<br>.000751 | 000024<br>001550 | 000466<br>000407 | 001389<br>001435 | .005521 | .001729 |
| 48-60     | •000751            | 001330           | 000407           | 001433           | .003321 | .000117 |
| QUADRATUR | RE SPECTRUM        |                  |                  |                  |         |         |
| K         | U.V                | U.W              | U, T             | V, W             | V.T     | W, T    |
|           | 10E-02             | 10E-02           | 10E-02           | 10E-02           | 10E-02  | 10E-03  |
| 1         | 142733             | 148650           | 090469           | 033304           | 044003  | 177825  |
| 2         | 418052             | 424050           | 140129           | 202808           | 130508  | 290898  |
| 3         | 322076             | 625996           | 167285           | 265022           | 122271  | 310503  |
| 4         | .007876            | 460275           | 105334           | 190235           | 036819  | 076939  |
| 5         | .000387            | 186222           | 032533           | 132980           | 016102  | .137028 |
| 6         | 084857             | .023148          | .013226          | 032827           | 006161  | .091100 |
| 7-8       | 117730             | .027377          | .001137          | .042524          | 000215  | 178654  |
| 9-11      | 066706             | .011056          | 006655           | .015121          | 006225  | 117002  |
| 12-15     | 027853             | 001228           | .002254          | 002546           | .000241 | 001233  |
| 16-20     | 001980             | 003679           | 001890           | 001767           | 000718  | 016871  |
| 21-27     | 000525             | 002150           | 000468           | .001457          | 000563  | 001635  |
| 28-36     | 005043             | .004466          | 000677           | .002180          | 000353  | 012857  |
| 37-47     | .000957            | 000490           | 000371           | 000897           | .000336 | 009561  |
| 48-60     | .000601            | 000691           | .000029          | 001281           | 000174  | .000910 |
| POWER SPE | CTRUM              |                  |                  |                  |         |         |
| K         | U                  | v                | w                | T                | N       | RHO(W)  |
|           | _                  |                  |                  |                  |         |         |
|           | 10E-01             | 10E-01           | 108-02           | 10E-02           | 10E-01  | 10E-02  |
| 0         | .011419            | .003782          | .032605          | .007429          | .037675 | .011248 |
| 1         | .166453            | .074390          | .437019          | .079105          | .290330 | .087746 |
| 2         | .247412            | . 125022         | .726196          | .113564          | .343248 | .108537 |
| 3         | . 268065           | .147292          | .896831          | .119557          | .345737 | .113461 |
| 4         | .168893            | .100292          | .717293          | .066735          | .193589 | .064513 |
| 5         | .098513            | .059095          | .646911          | .035986          | .098986 | .033673 |
| 6         | .071848            | .049624          | .648206          | .027694          | .095387 | .032355 |
| 7-8       | .050539            | .044550          | .497904          | .022947          | .066002 | .021750 |
| 9-11      | .032010            | .026656          | .303874          | .018506          | .038305 | .013403 |
| 12-15     | .024604            | .019982          | .213560          | .012773          | .023579 | .008286 |
| 16-20     | .013041            | .013296          | .163343          | .006403          | .015873 | .005387 |
| 21-27     | .008755            | .007979          | .102143          | .003683          | .012671 | .003974 |
| 28-36     | .006410            | .004412          | .058316          | .002446          | .005398 | .001787 |
| 37-47     | .003239            | .003175          | .034736          | .001361          | .003013 | .001030 |
| 48-60     | .001798            | .001680          | .021590          | .000736          | .001600 | .000512 |

RUN NO. 82D 40M 11-02-62 0800-0915 EST 61 PDINT RUNNING MEAN, NO BLOCK AVERAGING

### COSPECTRUM

| K     | U, N    | U,RHO(W) | V , N   | V,RHO(W) | W. N    | W, RHO(W) | T,N     | T,RHO(W) | N.RHO(W) |
|-------|---------|----------|---------|----------|---------|-----------|---------|----------|----------|
|       | 1.0E-02 | 10E-02   | 10E-02  | 10E-03   | 10E-02  | 10E-02    | 10E-02  | 10E-03   | 10E-02   |
| 0     | 025389  | 006410   | .019083 | .027133  | .030564 | .006530   | .020258 | .046075  | .064500  |
| i     | 300264  | 089722   | 021551  | 052681   | .401737 | .087341   | .159960 | .401504  | .498071  |
| 2     | 654203  | 171391   | 189761  | 311735   | .751186 | .158206   | .257878 | .622756  | .601585  |
| 3     | 789891  | 193836   | 256331  | 381587   | .978061 | .198587   | .326075 | .744137  | .618186  |
| 4     | 372951  | 091331   | 098429  | 105059   | .678960 | .133494   | .199575 | .443383  | .349242  |
| 5     |         | 045048   |         | .026003  | .442228 | .087134   | .114454 | .249708  | .180550  |
| 6     |         |          | 022174  |          | .374327 | .073636   | .113919 | .233960  | .174387  |
| 7-8   |         |          | 110237  |          | .261742 | .052128   | .065098 | .146557  | .118305  |
| 9-11  | 045537  | 011886   | 031574  | 037474   | .092557 | .018874   | .048808 | .112249  | .070546  |
| 12-15 | .000640 | 002531   | .012165 | .052604  | .071930 | .015166   | .030141 | .071650  | .043403  |
| 16-2C | 014047  | 003466   | 014713  | 015119   | .054706 | .011335   | .017581 | .039963  | .028838  |
| 21-27 | 011492  | 002295   | 004090  | 000518   | .036076 | .006842   | .008785 | .020985  | .022135  |
| 28-36 | 003662  | 000959   | 003320  | 004590   | .019111 | .003779   | .005267 | .012940  | .009633  |
| 37-47 | .002325 | .000293  | 000429  | .001042  | .010720 | .002081   | .003317 | .007787  | .005475  |
| 48-60 | 000742  | 000216   | 000704  | .000012  | .002297 | .000524   | .001135 | .003186  | .002788  |

#### QUADRATURE SPECTRUM

| ĸ     | U, N    | U,RHO(W) | V,N     | V+RHO(W) | W. N    | W.RHD(W) | T+N     | T,RHO(W) | N.RHO(W) |
|-------|---------|----------|---------|----------|---------|----------|---------|----------|----------|
|       | 10E-02  | 10E-02   | 10E-02  | 10E-03   | 10E-02  | 10E-03   | 10E-03  | 10E-04   | 10E-04   |
| 1     | 173792  | 044101   | 093735  | 232359   | .158255 | . 223294 | 188081  | 305839   | .318841  |
| 2     | 499804  | 105954   | 248982  | 641297   | .189015 | .253888  | 363903  | 580838   | .650633  |
| 3     | 993150  | 190756   | 259748  | 642601   | .157873 | . 199653 | .021131 | .041632  | 031166   |
| 4     | 707246  | 133386   | 166053  | 333385   | .111146 | .164132  | .329457 | .532361  | 605919   |
| 5     | 122306  | 025700   | 099987  | 189798   | .067501 | -132278  | 027127  | 044630   | .035252  |
| 6     | .147301 | .026204  | .024106 | .025631  | 033336  | 035823   | 185822  | 299125   | .355043  |
| 7-8   | .129186 | .021245  | .033351 | .051866  | 057406  | 124888   | .069793 | .108394  | 119481   |
| 9-11  | .038492 | .004894  | 032474  | 063816   | 008883  | 034827   | .038817 | .060664  | 067314   |
| 12-15 | .033746 | .005803  | 016917  | 027115   | .001357 | .002064  | .016285 | .024204  | 038649   |
| 16-20 | 005831  | 001294   | 015295  | 026261   | .022523 | .033023  | .022442 | .036727  | 036713   |
| 21-27 | 001104  | 000285   | ,003286 | .004963  | .013084 | .020925  | .041134 | .066498  | 073499   |
| 28-36 | .001529 | .000109  | 002095  | 004026   | .004931 | .005688  | .015745 | .025066  | 028526   |
| 37-47 | 000702  | 000178   | 000908  | 000962   | 000437  | 002518   | .007785 | .012503  | 012233   |
| 48-60 | .001241 | .000199  | 000335  | 000796   | 000710  | 001121   | .002185 | .003535  | 004274   |

RUN NO. 82D 40M 11-02-62 0800-0915 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

| H.       | U, V              | U, W              | U,T               | V, W              | V,T               | WyT               |
|----------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
|          | 0.07777           | 0 73746           | 0 34043           | 0 53450           | 0.24740           | 0 10700           |
|          | 0.97223<br>10E-01 | 0.73745<br>10E-01 | 0.34042<br>10E-01 | 0.53658<br>10E-01 | 0.24769<br>10E-01 | 0.18788<br>10E-01 |
|          | 105-01            | 105-01            | 105-01            | 105-01            | 105-01            | 105-01            |
| 0        | .022850           | 379761            | 608030            | 125256            | .121888           | .569024           |
| ĭ        | 047117            | 062724            | 391674            | .006065           | .103656           | .238989           |
| 2        | 042609            | 025200            | 216187            | .023609           | .115665           | .077424           |
| 3        | 017401            | .032028           | 136168            | .054127           | .116589           | .021375           |
| 4        | .012434           | 039526            | 168356            | 009269            | .099008           | .081505           |
|          |                   |                   |                   |                   |                   | 1000              |
| 5        | 035631            | 075294            | 167885            | .084540           | .101667           | .077826           |
| 6        | 055845            | .006678           | 071995            | .116945           | .142332           | 074594            |
| 7        | 064683            | .024858           | 003208            | .160611           | .151830           | 095351            |
| 8        | 024568            | 006687            | 002253            | .097059           | .063803           | 024480            |
| 9        | .000519           | .027804           | 000661            | .044032           | .021827           | 058732            |
| 10       | 027426            | 003602            | 004760            | .058210           | .051694           | 079833            |
| ii       | 009136            | 013652            | 012487            | .032871           | .027861           | 064635            |
| 12       | .015301           | 049058            | .035995           | 054762            | 052460            | 011822            |
| 13       | .060289           | 081740            | .038107           | 031073            | 165488            | .094207           |
| 14       | .076227           | 057990            | .033030           | 113809            | 185360            | .056668           |
|          |                   | ********          | ***********       |                   |                   |                   |
| 15       | 308390            | 104200            | .047816           | 099422            | 134946            | .080617           |
| 16       | .029369           | 061429            | .088786           | 128744            | 106472            | .078928           |
| 17       | .058131           | .014644           | .094186           | 164841            | 175050            | .020945           |
| 18       | .025354           | .105405           | .122237           | 072957            | 164979            | 078416            |
| 19       | .117938           | .079347           | .141941           | 222029            | 201432            | 075414            |
|          |                   |                   |                   | 11777             |                   |                   |
| 20       | .019970           | .077348           | .170808           | 080769            | 114387            | 118312            |
| 21       | 054247            | .075492           | .213002           | 037724            | 045836            | 076509            |
| 22       | 008783            | -114841           | .245340           | 009561            | 037733            | 195494            |
| 23       | 013247<br>.013289 | .099411           | .192556           | 018338            | 065584            | 167948            |
| 24       | .013289           | .029501           | .150608           | .045097           | 047678            | 126872            |
| 25       | 021482            | .091914           | .140749           | .047590           | .014687           | 096078            |
| 26       | 047823            | .113290           | .114902           | .046447           | .028262           | 109730            |
| 27       | 015355            | .086906           | .065198           | .013877           | .004442           | 072079            |
| 28       | .021248           | 003354            | .019260           | .039170           | 008012            | .014094           |
| 29       | 009481            | .014270           | .014395           | .053688           | .001342           | .026649           |
|          |                   |                   |                   |                   |                   |                   |
| 30       | .021844           | .007144           | .034541           | 010213            | 011301            | .012906           |
|          |                   |                   |                   |                   |                   |                   |
| COSPECTE | JM                |                   |                   |                   |                   |                   |
| K        | U,V               | U,W               | U, T              | V, W              | V, T              | W,T               |
| ^        | 0, •              | 0, #              | 0,1               | V 1 M             | ***               | <b></b> 1.        |
|          | 10E-02            | 10E-02            | 10E-02            | 10E-02            | 10E-02            | 10E-02            |
|          | 106-02            | 106-02            | 106-02            | 105-02            | 105-02            | 105-02            |
| 0        | 035363            | 090209            | 114495            | .020645           | .031304           | .027477           |
| 1        | 232989            | 334597            | 565488            | .242513           | .238145           | .133972           |
| 2        | 163566            | 087806            | 323869            | .138405           | .161701           | .078641           |
| 3        | .017464           | 057276            | 168895            | 144185            | .003966           | .087803           |
| 4        | .121157           | 223849            | 160466            | 230044            | 069367            | .124376           |
| _        |                   |                   |                   | 2211.01           |                   |                   |
| 5        | .037992           | 163440            | 117345            | 086173            | 022583            | .069782           |
| 6        | 012757            | 004054            | 068642            | 031345            | .007489           | .016805           |
| 7        | 037261            | 027151            | 063853            | 007406            | .012476           | .027469           |
| 8        | 059039            | 128502            | 049650            | .022876           | .006852           | -045868           |
| 9-11     | 031794            | 134881            | 076642            | .001568           | .011569           | .038435           |
| 12-14    | .078911           | 157714            | 086441            | 073585            | 022524            | .063164           |
| 15-21    | .041288           | 068094            | 023076            | 032856            | .007016           | .021012           |
| 22-30    | .036699           | 156402            | 027325            | 034776            | .003223           | .031700           |
| 22 30    | • 0300 77         | • 170402          | .021323           |                   | .007223           | .031100           |

RUN NO. 82D 40M 11-02-62 0800-0915 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

| M       | U, N    | U.RHO'W) | V.N     | V,RHO(W) | W. N     | W. RHO(W) | T+N     | T,RHO(W) | N,RHO(W) |
|---------|---------|----------|---------|----------|----------|-----------|---------|----------|----------|
|         | 0.20634 | 0.36932  | 0.15014 | 0.26872  | 0.11388  | 0.20383   | 0.52570 | 0.94090  | 0.57033  |
|         | 10E 00  | 10E-01   | 10E 00  | 10E-01   | 10E 00   | 10E-01    | 10E-01  | 10E-02   | 10E-01   |
| 0       | 273432  | - 348366 | .077926 | .090522  | .371046  | .430740   | .513722 | .630741  | .989760  |
| ĭ       | 188472  |          | .105640 | .113171  | .094600  | .124620   | .336253 | .411025  | .668968  |
| 2       |         | 175890   | .118705 | .126333  | .007712  | .019512   | .240199 | .278190  | .415182  |
| 3       | 150312  |          | .080229 | .091914  | .054478  | .052514   | .212050 | .232189  | .268188  |
| 4       |         | 165620   | .033449 | .046819  | .057338  | .065253   | .196015 | .212088  | .160673  |
|         |         |          |         |          |          |           |         |          |          |
| 5       | 111680  |          | .038230 | .050822  | .054288  | .062432   | .110500 | .121705  | .030702  |
| 6       | 008336  |          | .082269 |          | 053676   |           | .026587 |          | 061598   |
| 7       |         | .019994  | .077836 |          | 059882   |           |         | 014885   |          |
| 8       |         | 045990   | .059238 | .063938  | .096565  |           | .079382 | .056740  | .013593  |
| 9       | 037568  | 034174   | .047566 | .046370  | 012666   | 020604    | .028110 | .011347  | 084594   |
| 10      | 037700  | 034848   | .033533 | .038989  | 067223   | 074591    | 023655  | 038233   | 133116   |
| 11      | 048657  | 046041   | 015572  | 009597   | 018767   | 027681    | 099811  | 106948   | 152853   |
| 12      |         |          | 019958  |          |          |           |         |          |          |
| 13      | 018127  | 009912   | 034788  | 058165   | .030032  | .042741   | 080632  | 081454   | 156130   |
| 14      |         |          | 064148  |          |          |           | 096636  |          |          |
| 15      | .038237 | .042564  | 085444  | 098977   | .016106  | .027784   | 124288  | 112200   | 189634   |
| 16      | .090355 |          | 089385  |          |          |           | 125060  |          |          |
| 17      | .128081 | .131172  | 215977  | 224326   |          |           |         |          |          |
| 18      | .170382 |          | 196067  |          |          |           |         |          |          |
| 19      | .189073 |          | 226019  |          |          |           |         |          |          |
| 20      | .201426 | -210285  | 223832  | 221167   | 124 493  | 13220B    | 156798  | 177421   | 206243   |
| 21      | .156576 |          | 196982  |          |          |           |         |          |          |
| 22      | .173877 |          | 162503  |          |          |           |         |          |          |
| 23      | .136247 |          | 065319  |          |          |           |         |          |          |
| 24      | .069869 | .087976  | .021343 |          |          | 020631    |         |          | .054562  |
| 25      | .037659 | .057544  | .046630 | .044613  | - 010613 | 006100    | 016+26  | 045745   | 009307   |
| 26      | .031582 | .048015  | .058767 |          |          | 081456    |         |          |          |
| 27      |         | 022775   | .056281 |          |          | 038460    |         |          |          |
| 28      |         | 010678   | .092145 |          |          | 078574    |         |          |          |
| 29      | .021566 | .021916  | .119326 |          |          | 113939    |         |          |          |
|         |         |          |         |          |          |           |         |          |          |
| 30      | .002235 | .007540  | .113028 | .099910  | 073284   | 063977    | 105248  | 101089   | 117405   |
| COSPECT | RUM     |          |         |          |          |           |         |          |          |
|         |         |          |         |          |          |           |         |          |          |
| K       | U, N    | U,RHO(W) | V • N   | V,RHO(W) | W, N     | W, RHO(W) | T .N    | T.RHO(W) | N,RHO(W) |
|         | 10E-01  | 10E-02   | 10E-01  | 10E-02   | 10E-02   | 10E-02    | 10E-02  | 10E-02   | 10E-01   |
| 0       | 045335  | 094122   | .007874 | .018418  | .097311  | .020710   | .136481 | .028801  | .017314  |
| i       |         | 484503   | .113592 | .226594  | .523927  | .108947   | .805597 | .163694  | .112494  |
| 2       |         | 253765   | .073332 | .147629  | .333758  | .068093   | .576967 | .115207  | .097380  |
| 3       |         |          | 013563  |          | .221670  | .051483   | .286399 | .064793  | .073251  |
| 4       |         |          | 011004  |          |          | .066954   | .144629 | .041770  | .050715  |
| •       |         | -1104010 | *011004 | *030031  | *210404  | *000,774  | ******* | .041110  | .030.13  |
| 5       |         | 117983   | .017421 | .024285  | -219406  | .047942   | .154142 | .035146  | .044014  |
| 6       |         | 033696   | .001233 | .003419  | .043319  | .009944   | .097227 | .020939  | .032809  |
| 7       |         | 002527   | .010224 | .018754  | .127105  | .025641   | .084859 | .019753  | .030056  |
| 8       | .008466 | .004605  | .016163 | .027346  | .223385  | .044646   | .094776 | .019921  | .025494  |
| 9-11    | .006142 | 003940   | 001517  | 000313   | .066206  | .017639   | .000009 | .004355  | .010077  |
| 12-14   | 025507  | 056865   | 010206  | 020612   | .240644  | .050518   | .095051 | .020753  | .011669  |
| 15-21   |         |          | 003553  |          | .157734  | .029376   | .044197 | .009473  | .008321  |
| 22-30   |         |          | 000892  |          | .174266  | .034144   | .040765 | .008505  | .006899  |

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| М        | U,V                                     | U, W      | U,T           | V,W      | V, T     | W, T     |
|----------|---|-----------|---------------|----------|----------|----------|
|          | 0.97223                                 | 0.73745   | 0.24042       |          |          |          |
|          | 10E-01                                  | 10E-01    |               | 4423030  | 0.24769  | 0.18788  |
|          |   | 105-01    | 10E-01        | 10E-01   | 10E-01   | 10E-01   |
| 1        | 018148                                  | - 100000  |               |          |          |          |
| 2        | 067930                                  | 188990    | 145991        | 123589   | 094482   | 040730   |
| 3        |   |           | 113275        | 022001   | 040531   | 084553   |
| 4        | .007808                                 | 029254    | 123140        | .011801  | .020838  |          |
| 5        | .037394                                 | 059529    | 109364        | .024441  | • 029692 | 049995   |
| ,        | 051490                                  | 082369    | 144539        | 027641   | 065006   | 074997   |
|          |   |           |               |          | -•005006 | 036677   |
| 6        | 144068                                  | 129937    | 120466        | 093883   | 155500   |          |
| 7        | 137842                                  | .022778   | 037015        |          | 155503   | 060021   |
| 8        | 085785                                  | 022014    | 052209        | 033538   | 139933   | 011992   |
| 9        | 111648                                  | 060371    | 053827        | -041737  | 065788   | 016678   |
| 10       | 092779                                  | 014438    |               | 043172   | 060425   | 014838   |
|          |   | ********* | 045584        | .033448  | 010223   | .013447  |
| 11       | 099015                                  | 040013    |               |          |          |          |
| 12       | 123122                                  | .048913   | 048785        | • 057433 | 038010   | .037618  |
| 13       |   | •048131   | 037207        | .027930  | 054878   | .036012  |
| 14       | 060523                                  | .046119   | 015825        | .063823  | 037850   |          |
| 15       | .011444                                 | 054031    | 048689        | .044252  | .034629  | -052401  |
| 4.5      | 028129                                  | •015532   | 009988        | - 062285 |          | 025558   |
|          |   |           |               | • 002200 | • 047712 | .013480  |
| 16       | 055787                                  | .007412   | 017238        | 03/0/1   |          |          |
| 17       | .014818                                 | 105865    | 085012        | • 026841 | .052361  | .045843  |
| 18       | .088943                                 | 041230    |               | 070880   | • 056103 | .054030  |
| 19       | .099015                                 | 054671    | 058997        | .113588  | -141227  | 026111   |
| 20       | .092855                                 |           | 044951        | .048004  | .146270  | 057454   |
|          | *************************************** | 055464    | 045346        | 052572   | -122070  | 066547   |
| 21       | 05/075                                  |           |               |          |          | 1000047  |
| 22       | .054875                                 | • 030350  | 008832        | 030737   | - 094874 | 022440   |
| 23       | • 100275                                | •042777   | .020242       | 017808   | .069498  | 032642   |
|          | • 1852 91                               | .052288   | .074450       | - 036622 |          | 019795   |
| 24       | <ul><li>113688</li></ul>                | .111109   | .143852       | 012401   | • 098582 | 008353   |
| 25       | .016654                                 | .082829   | 165573        |          | -014182  | •025501  |
|          |   | , , ,     | •107575       | 084301   | 046407   | .027883  |
| 26       | .055124                                 | .063491   | 162177        |          |          |          |
| 27       | .149363                                 | .088053   | -152177       | 026744   | 004974   | -056608  |
| 28       | . 154287                                | -038725   | -131627       | .008389  | .021805  | .078420  |
| 29       | .090322                                 |           | -103144       | 009898   | .018776  | .051369  |
| 30       | .081954                                 | .062043   | .103321       | .009477  | 015150   | .028506  |
|          | • 001 434                               | •103995   | •099550       | 026923   | 074527   |          |
|          |   |           |               |          | •014321  | .054077  |
| QUADRATU | RE SPECTRUM                             |           |               |          |          |          |
|          |   |           |               |          |          |          |
| K        | U, V                                    | 11 14     |               |          |          |          |
|          | • | U, W      | U.T           | V.W      | V.T      | W.T      |
|          |   |           |               |          | •        |          |
|          | 10E-02                                  | 105 00    |               |          |          |          |
|          | 105-02                                  | 10E-02    | 10E-02        | 10E-03   | 10E-02   | 105 00   |
| 1        |   |           |               |          | 100 02   | 10E-03   |
|          | 473083                                  | 160785    | 193698        | .562887  | - 035007 |          |
| 2        | 478039                                  | 138653    | 143804        | 212775   | 035087   | 132546   |
| 3        | 127605                                  | 151894    | 104095        |          | 100118   | 207882   |
| 4        | • 134500                                | 215087    | 118159        | 983721   | 067443   | 429113   |
| 5        | .094585                                 | 100178    |               | 693139   | .015138  | 451514   |
|          |   | •100178   | 077548        | 035581   | .014261  | 174158   |
| ó        | .082500                                 | 010101    | 4             |          |          |          |
| 7        | .058398                                 | .018101   | 046733        | .221826  | .015158  | 121925   |
| 8        |   | 032221    | 053333        | .160234  | .031436  |          |
| 9-11     | .000765                                 | 056124    | 024002        | 138568   | .016493  | ~.117996 |
|          | 088359                                  | 045385    | 013174        | 503292   |          | 026394   |
| 12-14    | 116216                                  | 143448    | 038768        | 957247   | 036839   | 082552   |
|          |   |           |               | 4721671  | 040783   | 055064   |
| 15-21    | .048343                                 | 089289    | 014872        | - 252/27 |          |          |
| 22-30    | .025761                                 | 061554    | 019905        | 352627   | 007694   | .013640  |
|          |   |           | • 0 1 7 7 0 3 | 355291   | 007710   | .090694  |
|          |   |           |               |          |          |          |

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### NORMALIZED QUADRATURE COVARIANCE

| M  | U. N    | U.RHO(W) | V.N     | V,RHO(W) | W. N    | W, RHO(W) | T, N    | T,RHO(W) | N,RHO(W) |
|----|---------|----------|---------|----------|---------|-----------|---------|----------|----------|
|    | 0.20634 | 0.36932  | 0.15014 | 0.26872  | 0.11388 | 0.20383   | 0.52570 | 0.94090  | 0.57033  |
|    | 10E 00  | 10E-01   | 10E 00  | 10E-01   | 10E 00  | 10E-01    | 10E-01  | 10E-02   | 10E-01   |
| 1  | 126122  | 138457   | 067481  | 076666   | .049292 | .037651   | 014565  | 013194   | .002155  |
| 2  | 081077  | 091647   | 022355  | 026604   | .006626 | 007372    | 002580  | 002512   | .000425  |
| 3  | 107533  | 116899   | 047786  | 039344   | 000975  | 009589    | .014329 | .012491  | 002746   |
| 4  | 140061  | 144815   | 058965  | 047844   | 062083  | 068352    | .023124 | .020646  | 003980   |
| 5  | 154671  | 163952   | 079339  | 081698   | 078553  | 077414    | 009448  | 008566   | .001258  |
| 6  | 123714  | 132612   | 100732  | 116110   | 087399  | 087866    | 013594  | 011969   | .002020  |
| 7  | 022858  | 026231   | 068852  | 084774   | 024746  | 024558    | .006494 | .005864  | 001367   |
| 8  | 084557  | 085054   | 041861  | 048268   | .001314 | 001492    | .030570 | .027900  | 005280   |
| 9  | 171337  | 164094   | 071029  | 073916   | 010278  | 012013    | .055235 | .049826  | 009620   |
| 10 | 173966  | 164925   | 025527  | 023922   | .014681 | .015622   | .087114 | .078664  | 014948   |
| 11 | 202263  | 190842   | 025703  | 029546   | .081524 | .080128   | .161360 | .145738  | 026751   |
| 12 | 200997  | 188024   | 023130  | 030195   | .118503 | .113077   | .185381 | .167676  | 030584   |
| 13 | 168555  | 154940   | 004322  | 009860   | .121872 | .119417   | .170152 | .154217  | 027636   |
| 14 | 156218  | 149393   | .040491 | .041741  | .020314 | .014493   | .159038 | .143992  | 025330   |
| 15 | 100788  | 092767   | .085262 | .084857  | 002921  | .000108   | .135291 | .123029  | 021481   |
| 16 | 084914  | 079110   | .052505 | .056062  | .027286 | .032180   | .105380 | .095470  | 016850   |
| 17 | 108635  | 113576   | .009568 | .017893  | .054770 | . 058492  | .042020 | .038426  | 006619   |
| 18 | 048559  | 053741   | .154694 | .163413  | .043410 | . 034994  | 012748  | 011489   | .002370  |
| 19 | 005780  | 012909   | .171899 | .179469  | .012734 | .001289   | 021456  | 019640   | .003595  |
| 20 | 031669  | 036735   | .107595 | .117013  | .023108 | .009579   | 001673  | 001697   | .000024  |
| 21 | .003264 | .001517  | .093905 | .099987  | .014142 | .007156   | 003416  | 003556   | .000269  |
| 22 | .015200 | .017136  | .074553 | .079012  | 049850  | 048406    | 005447  | 005212   | -001024  |
| 23 | .018833 | .029311  | .096073 | .103264  | 018631  | 018718    | .017480 | .015757  | 002849   |
| 24 | .039330 | .059697  | .054409 | .051537  | .074055 | .070801   | .062246 | .055891  | 010759   |
| 25 | .042380 | .065389  | .004502 | 004276   | .095434 | .090808   | .074586 | .066996  | 012875   |
| 26 | .083975 | .101782  | 002142  | 003296   | .060302 | .063474   | .048823 | .043431  | 008967   |
| 27 | .107512 | .119124  | 039500  | 031894   | 009992  | .003197   | .022812 | .020017  | 004760   |
| 28 | .076815 | .085960  | 086433  | 075801   | 019088  | 008418    | 003566  | 003348   | .000070  |
| 29 | .121019 | .126735  | 087929  | 082581   | .026421 | .028520   | 014939  | 013750   | .002275  |
| 30 | .137167 | .140756  | 106027  | 109269   | .014207 | .022622   | 070538  | 063975   | .011798  |

### QUADRATURE SPECTRUM

| K     | U.N     | U.RHO(W) | V+N     | V.RHO(W) | H+N     | W+RHO(W) | T+N     | T.RHO(W) | N+RHO(W) |  |
|-------|---------|----------|---------|----------|---------|----------|---------|----------|----------|--|
|       | 10E-01  | 10E-02   | 10E-02  | 10E-02   | 10E-02  | 10E-03   | 10E-02  | 10E-03   | 10E-03   |  |
| 1     | 254582  | 447016   | 086909  | 019788   | .193132 | .290593  | .373103 | .604298  | 668332   |  |
| 2     | 137426  | 248163   | 573096  | 110017   | 078009  | 161913   | .113853 | .184294  | 210796   |  |
| 3     | 029872  | 066930   | 470381  | 087622   | 282050  | 533747   | 120834  | 196410   | .204508  |  |
| 4     | 005163  | 029588   | 046033  | 004458   | 241521  | 472158   | 144781  | 234708   | .257781  |  |
| 5     | 035490  | 071149   | 047883  | 005191   | 006904  | 041159   | .032231 | .052196  | 051455   |  |
| 6     | 052611  | 093199   | 034806  | 003022   | .159856 | . 237296 | .095885 | .154453  | 170278   |  |
| 7     | 041489  | 076543   | .027420 | .010043  | .202780 | . 305644 | .021272 | .033269  | 043812   |  |
| 8     | 013954  | 026656   | .001503 | .003245  | .109185 | .170738  | 013522  | 022370   | .020460  |  |
| 9-11  | .011751 | -016845  | 013880  | 008956   | .106711 | .158551  | 017074  | 027370   | .031990  |  |
| 12-14 |         | 037147   |         |          |         |          | 023262  |          | .041194  |  |
| 15-21 | 013912  | 025352   | 065698  | 012039   | .040719 | .067297  | 000042  | 000014   | 000859   |  |
| 22-30 | 010123  | 019920   | 070077  | 012781   | .046712 | -089181  | 003203  | 005318   | .003540  |  |

RUN NO. 82D 40M 11-02-62 0800-0915 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

# NORMALIZED AUTOCOVARIANCE

|          | _                  |          |   |                   |                    |                          |
|----------|--------------------|----------|---|-------------------|--------------------|--------------------------|
| H        | U                  | ٧        | W                                       | T                 | N                  | RHD(W)                   |
|          | 0.13362            | 0.70742  | 0.40701                                 | 0 0.77            |                    |                          |
|          | 10E 00             | 10E-01   | 10E-01                                  | 0.86726<br>10E-02 | 0.31865<br>10E 00  | 0.10208<br>10E-01        |
| 0        | 1.000000           | 1.000000 | 1.000000                                | 1 000000          |                    |                          |
| ì        | .472493            | .433279  | .064494                                 | 1.000000          | 1.000000           | 1.000000                 |
| 2        | -193605            | . 207368 | .001109                                 | .643674           | •678032            | .673188                  |
| 3        | -128579            | -190245  | 081251                                  | -367842           | •415422            | • 421296                 |
| 4        | .093041            | . 191719 | .046184                                 | -244041           | .257648            | .281050                  |
| 5        | 107005             |          | 1040184                                 | •209782           | -141496            | .180664                  |
| 6        | •107805<br>•055362 | •173559  | .046244                                 | -130366           | .013229            | .048351                  |
| 7        | 017299             | - 047089 | 135928                                  | 008452            | 073609             | 051306                   |
| 8        |                    | 105520   | 185174                                  | 099701            | 085733             | 072466                   |
| 9        | •033605<br>•038481 | 215475   | .046491                                 | 093485            | 000333             | .022436                  |
|          | •038481            | 189084   | 126334                                  | 085850            | 098919             | 074406                   |
| 10       | .044005            | 138481   | ~.114585                                | - 100157          |                    |                          |
| 11       | .005766            | 154886   | 072607                                  | 100157            | 142342             | 127194                   |
| 12       | 053008             | 254321   | .004192                                 | 098937            | 150487             | 156199                   |
| 13       | 042358             | 197848   |   | 070830            | 153316             | 159062                   |
| 14       | 141059             | 178541   | .042489                                 | 052999            | 157780             | 154733                   |
|          |                    | • 110341 | 013498                                  | 016366            | 189467             | 184322                   |
| 15       | 170190             | 093981   | .067877                                 | .000174           | - 107252           |                          |
| 16       | 102134             | 048058   | .188610                                 | .010393           | 187253             | 189788                   |
| 17       | 146780             | 108994   | .061632                                 | 003130            | 100634             | 118489                   |
| 18       | 180583             | 133095   | 115221                                  | 069315            | 118250             | 147291                   |
| 19       | 117798             | 094914   | .074103                                 |                   | 194635             | 225660                   |
| 20       | 169525             |          |   | 154572            | 196430             | 221686                   |
| 21       | 222995             | 201968   | 039596                                  | 214510            | 199261             | 215987                   |
| 22       | 203803             | 085591   | 044036                                  | 250915            | 132507             | 144461                   |
| 23       | 244396             | 074857   | 100181                                  | 329763            | 031861             | 062032                   |
| 24       |                    | 090357   | 385810                                  | 302951            | .053686            | .024925                  |
|          | 185770             | 069506   | 119077                                  | 253397            | .065089            | .038644                  |
| 25       | 161456             | 069463   | 083893                                  | - 10//2/          |                    |                          |
| 26       | 121915             | 060916   | 163191                                  | 186626            | 007056             | 016270                   |
| 27       | 060301             | 049678   | 056821                                  | 150129            | 104552             | 103864                   |
| 28       | 002375             | .043609  |   | 096165            | 120186             | 121657                   |
| 29       | .048180            | - 028998 | -114798                                 | 057885            | 169853             | 177320                   |
| 30       |                    | 0020770  | .066861                                 | 016794            | 169656             | 181816                   |
| 30       | .046200            | .027284  | .054823                                 | 038179            | 110764             | 122674                   |
| POWER SP | ECTRUM             |          |   |                   |                    |                          |
| K        |                    |          |   |                   |                    |                          |
|          | U                  | ٧        | M                                       | T                 | N                  | RHO(W)                   |
|          | 10E-01             | 10E-01   | 10E-02                                  | 105.00            |                    |                          |
|          |                    |          | 101-02                                  | 10E-02            | 10E-01             | 10E-02                   |
| 0        | .044329            | .009408  | .022520                                 | .037061           | 001430             |                          |
| 1        | · 245128           | . 099867 | .131764                                 | .184545           | .091620            | 033261                   |
| 2        | .154467            | -103065  | -124252                                 | .121177           | .605069            | -211657                  |
| 3        | .081813            | .087336  | .228697                                 | .102366           | .537504            | <ul><li>178351</li></ul> |
| 4        | .073100            | -055226  | -286248                                 |                   | 420785             | .130211                  |
|          |                    |          | *************************************** | .102107           | .297410            | .089561                  |
| 5        | -078008            | -025085  | .165540                                 | .057084           | -255202            | 077///                   |
| 7        | .079388            | .010879  | .097278                                 | .029119           | •192231            | .077446                  |
|          | .067156            | .014587  | -125701                                 | .033109           | .176213            | .056777                  |
| 8        | .045348            | .016241  | .151618                                 | .025015           |                    | .052228                  |
| 9-11     | .051922            | .026541  | -146094                                 | .024046           | •146720<br>•062152 | .044931<br>.017128       |
| 12-14    | .052650            | -030144  | 21/222                                  | _                 |                    | -01/120                  |
| 15-21    | .031056            | -018429  | -216202                                 | .029697           | .061346            | .022675                  |
| 22-3C    | .030729            | -018750  | -139976                                 | .012875           | -046401            | .015201                  |
|          | ,                  | -010130  | .252645                                 | .010596           | .038133            | 012692                   |
|          |                    |          |   |                   |                    |                          |

RUN NO. 82D 16M 11-02-62 0800-0915 EST RUN NO. 82D 40M 11-02-62 0800-0915 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

### COHERENCE WITH QUADRATURE

| K           | U       | ٧        | W       | T        | N       | RHO(W)  |
|-------------|---------|----------|---------|----------|---------|---------|
|             | 10E 00  | 10E 00   | 10E 00  | 10E 00   | 10E 00  | 10E 00  |
| 0           | .469345 | .200388  | .165382 | .535685  | .586842 | .560514 |
| 1           | .430006 | .578393  | .438113 | .573005  | .508905 | .509178 |
| 2           | .353207 | .650377  | .548609 | .573967  | .518011 | .529724 |
| 1<br>2<br>3 | .306115 | .584837  | .561912 | .529508  | .517027 | .525415 |
| 4           | .290658 | .510745  | .527283 | .422655  | .449521 | .458113 |
| 5           | .217155 | .489018  | .566079 | .303832  | .363353 | .374674 |
| 6           | .065871 | .367639  | .519100 | .221367  | .336387 | .331257 |
| 7-8         | .113963 | . 301969 | .438022 | .195765  | .208559 | .215608 |
| 9-11        | .287629 | .311972  | .213228 | .341147  | .318282 | .321389 |
| 12-15       | .117157 | .198849  | .306838 | .118785  | .178569 | .155985 |
| 16-20       | .140281 | .112623  | .225742 | .117024  | .192300 | .183596 |
| 21-27       | .106644 | .125909  | .111152 | . 247115 | .142462 | .139898 |
| 28-36       | .154595 | .112039  | .116246 | .136255  | .140426 | .118361 |
| 37-47       | .178294 | .208225  | .124630 | .160136  | .175151 | .181086 |
| 48-6C       | .140972 | .122566  | .123036 | .140302  | .136720 | .142200 |

#### 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

#### COHERENCE WITH QUADRATURE

| U       | V  | W  | Ť                             | N   | RHO(W)   |
|---------|--|--|-------------------------------|---|--|
| 10E 00  | 10E 00   | 10E 00   | 10E 00                        | 10E 00  | 10E 00   |
| .942507 | . 853499   | .760626  | .511204                       | .297372   | .362625  |
| .849720 | .768160  | .912089  | .508430                       | .567901   | .565148  |
| .726340 | .623212  | .620949  | . 492689                      | .703173   | .675678  |
| .707004 | .632587  | .133344  | .567039                       | .666874   | .643968  |
| .796197 | .785933  | .222056  | .818412                       | .663198   | .674434  |
| .539337 | .603648  | .546311  | .880196                       | .847293   | .860518  |
| .295786 | .205565  | .686241  | .645534                       | .555732   | .557127  |
| .447974 | . 357439   | .422374  | .553241                       | .383437   | .385777  |
| .659326 | -214075  | .458672  | .538511                       | .546040   | .511024  |
| .346211 | . 774051   | .483494  | .466306                       | .423124   | .398704  |
| .458639 | .702124  | .687330  | .733945                       | .652930   | .688269  |
| .347107 | .434903  | .561844  | .471683                       | .411302   | .397723  |
| .318252 | .496806  | .521962  | . 338455                      | .373371   | .376082  |
|         | 10E 00<br>.942507<br>.849720<br>.726340<br>.707004<br>.796197<br>.539337<br>.295786<br>.447974<br>.659326<br>.346211<br>.458639<br>.347107 | 10E 00 10E 00  .942507 .853499 .849720 .768160 .726340 .623212 .707004 .632587 .796197 .785933  .539337 .603648 .295786 .205565 .447974 .357439 .659326 .214075 .346211 .774051  .458639 .702124 .347107 .434903 | 10E 00 10E 00 10E 00  .942507 | 10E 00       10E 00       10E 00       10E 00         .942507       .853499       .760626       .511204         .849720       .768160       .912089       .508430         .726340       .623212       .620949       .492689         .707004       .632587       .133344       .567039         .796197       .785933       .222056       .818412         .539337       .603648       .546311       .880196         .295786       .205565       .686241       .645534         .447974       .357439       .422374       .553241         .659326       .214075       .458672       .538511         .346211       .774051       .483494       .466306         .458639       .702124       .687330       .733945         .347107       .434903       .561844       .471683 | 10E 00       10E 00       10E 00       10E 00       10E 00         .942507       .853499       .760626       .511204       .297372         .849720       .768160       .912089       .508430       .567901         .726340       .623212       .620949       .492689       .703173         .707004       .632587       .133344       .567039       .666874         .796197       .785933       .222056       .818412       .663198         .539337       .603648       .546311       .880196       .847293         .295786       .205565       .686241       .645534       .555732         .447974       .357439       .422374       .553241       .383437         .659326       .214075       .458672       .538511       .546040         .346211       .774051       .483494       .466306       .423124         .458639       .702124       .687330       .733945       .652930         .347107       .434903       .561844       .471683       .411302 |

RUN NO. 82E 16M 11-02-62 0916-1025 EST

### GROSS STATISTICS

| 2 CI<br>UNSTABLE<br>WATER/LAND | WIND SPI<br>Sigma a<br>Sigma e | 4.48 M/SEC<br>9.8 DEG<br>5.6 DEG | WIND DIRE<br>SOLAR RAI<br>NET RADIA     | OLATION 0.78                       |
|--------------------------------|--------------------------------|----------------------------------|---|------------------------------------|
|                                | WITH NO<br>RUNNING MEAN        | WITH 301 POINT<br>RUNNING MEAN   | WITH 61 POINT<br>RUNNING MEAN           | 301 PT RUN MEAN<br>10 PT BLOCK AVG |
| VARIANCES                      |                                |                                  |   |                                    |
| U                              | 0.62711E 00                    | 0.42733E-00                      | 0.24467E-00                             | 0.3131 <del>0E</del> -00           |
| V                              | 0.57499E 00                    | 0.41522E-00                      | 0.22110E-00                             | 0.30566E-00                        |
| W<br>T                         | 0.16427E-00<br>0.19134E-00     | 0.15982E-00<br>0.66468E-01       | 0.12712E-00<br>0.39395E-01              | 0.89012E-01<br>0.49246E-01         |
| Ň                              | 0.15225E 01                    | 0.46815E-00                      | 0.28775E-00                             | 0.33086E-00                        |
| RHD(W)                         | 0.41406E-01                    | 0.23096E-01                      | 0.14661E-01                             | 0.16237E-01                        |
| E                              | 0.68319E 00                    | 0.50124E 00                      | 0.29645E-00                             |                                    |
| GUSTINESS RATIO                | os<br>                         |                                  |   |                                    |
| U                              | 0.17676                        | 0.14592                          | 0.11041                                 | 0.12491                            |
| v                              | 0.16926                        | 0.14383                          | 0.10496                                 | 0.12341                            |
| W                              | 0.09047                        | 0.08924                          | 0.07959                                 | 0.06660                            |
| COVARIANCES                    |                                |                                  |   |                                    |
| U.V                            | 0.12570E-01                    | 0.16007E-01                      | -0.39670E-03                            | 0.17212E-01                        |
| U.W                            | -0.11413E-00                   | -0.99221E-01                     | -0.56180E-01                            | -0.80737E-01                       |
| U.T                            | -0.21582E-00                   | -0.74683E-01                     | -0.36130E-01                            | -0.63170E-01                       |
| V, W                           | -0.11017E-01                   | -0.12988E-01                     | -0.49456E-02                            | -0.12852E-01                       |
| V.T<br>W.T                     | 0.38713E-02<br>0.78075E-01     | -0.49345E-03<br>0.68363E-01      | 0.47018E-02<br>0.43171E-01              | -0.33444E-02<br>0.49472E-01        |
| U,N                            | 0.21244E-01                    | -0.18885E-00                     | -0.10023E-00                            | -0.15637E-00                       |
| U,RHO(W)                       | -0.35980E-01                   | -0.44285E-01                     | -0.22863E-01                            | -0.36867E-01                       |
| V,N                            | 0.15662E-01                    | -0.53436E-02                     | -0.12158E-03                            | -0.64183E-02                       |
| V,RHO(W)                       | 0.32112E-02                    | -0.97304E-03                     | 0.83393E-03                             | -0.16826E-02                       |
| W.N                            | 0.17613E-00                    | 0.15972E-00                      | 0.11118E-00                             | 0.10872E-00                        |
| W.RHO(W)                       | 0.42830E-01                    | 0.38407E-01                      | 0.25927E-01                             | 0.26674E-01                        |
| T,N<br>T,RHO(W)                | -0.84608E-01<br>0.21222E-01    | 0.14442E-00<br>0.35565E-01       | 0.97464E-01                             | 0.99366E-01                        |
| N.RHO(W)                       | 0.23143E-00                    | 0.33383E-01<br>0.10232E-00       | 0.23002E-01<br>0.64478E-01              | 0.25107E-01<br>0.71821E-01         |
| WE                             | 0.41329E-01                    | 0.49508E-01                      | 0.22908E-01                             |                                    |
|                                |                                |                                  | *************************************** |                                    |
| NORMALIZED COVA                | ARIANCES                       |                                  |   |                                    |
| U,V                            | 0.02093                        | 0.03800                          | -0.00171                                | 0.05563                            |
| U,W                            | -0.35559                       | -0.37967                         | -0.31855                                | -0.48357                           |
| U,T                            | -0.62306                       | -0.44313                         | -0.36801                                | -0.50867                           |
| V-M                            | -0.03585                       | -0.05042                         | -0.02950                                | -0.07792                           |
| V, T                           | 0.01167                        | -0.00297                         | 0.05038                                 | -0.02726                           |
| W.T                            | 0.44038                        | 0.66328                          | 0.61005                                 | 0.74722                            |
| U.N                            | 0.02174                        | -0.42223                         | -0.37775                                | -0.48579                           |
| U,RHO(W)                       | -0.22329                       | -0.44577                         | -0.38172                                | -0.51701                           |
| V,N<br>V,RHO(W)                | 0.01674<br>0.02081             | -0.01212<br>-0.00994             | -0.00048                                | -0.02018                           |
| W, N                           | 0.02081                        | 0.58390                          | 0.01465<br>0.58133                      | -0.02388<br>0.63354                |
| W,RHO(W)                       | 0.51932                        | 0.63214                          | 0.60056                                 | 0.70165                            |
| T.N                            | -0.15676                       | 0.81869                          | 0.91541                                 | 0.77845                            |
| T,RHO(W)                       | 0.23843                        | 0.90771                          | 0.95713                                 | 0.88788                            |
| N,RHO(W)                       | 0.92176                        | 0.98404                          | 0.99270                                 | 0.97989                            |
|                                |                                |                                  |   |                                    |

RUN NO. 82E 16M 11-02-62 0916-1025 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

|          |   | 71=     |   |         |   |          |
|----------|---|---------|---|---------|---|----------|
| M        | U,V                                     | U, W    | U, T                                    | V, W    | v, r                                    | W.T      |
|          |   |         |   |         |   |          |
|          | 0.23259                                 | 0.17638 | 0.98172                                 | 0.16766 | 0.93317                                 | 0.70768  |
|          | 10E 00                                  | 10E 00  | 10E-01                                  | 10E 00  | 10E-01                                  | 10E-01   |
|          |   |         | 1.21.1                                  | 772722  | 1000200                                 | 711111   |
| 0        | 001762                                  | 318431  | 367857                                  | 029455  | .050738                                 | .610113  |
| 1        | 003297                                  | 308507  | 346559                                  | 032314  | .038343                                 | .538687  |
| 2        | 005265                                  | 279516  | 306871                                  | 035714  | .023658                                 | .434429  |
| 3        | 006857                                  | 239811  | 268402                                  | 040355  | .009525                                 | .351433  |
| 4        | 003229                                  | 196369  | 230178                                  | 037228  | 001285                                  | .283530  |
| 5        | .004127                                 | 157238  | 192808                                  | 030056  | 008294                                  | .220224  |
| 6        | .010761                                 | 122536  | 154282                                  | 023829  | 010917                                  | .163984  |
| 7        | .011757                                 | 092342  | 122961                                  | 022232  | 015639                                  | .108520  |
| 8        | .011919                                 | 068761  | 102186                                  | 018902  | 020458                                  | .056942  |
| 9        | .015692                                 | 041080  | 078923                                  | 014962  | 026898                                  | .014493  |
| •        | *************************************** |         |   |         | *************************************** |          |
| 10       | .016064                                 | 012719  | 047823                                  | 009983  | 029505                                  | 017267   |
| 11       | .009460                                 | .011575 | 014870                                  | 006006  | 033543                                  | 043260   |
| 12       | .000269                                 | .036367 | .017352                                 | .005034 | 034935                                  | 070715   |
| 13       | 007600                                  | .060451 | .051179                                 | .008485 | 032204                                  | → 099873 |
| 14       | 014436                                  | .083205 | .073806                                 | .004307 | 028215                                  | 119014   |
|          |   |         |   |         |   |          |
| 15       | 023511                                  | .097840 | .088050                                 | 003005  | 021056                                  | 132982   |
| 16       | 029930                                  | .104976 | .098505                                 | 009724  | 012825                                  | 139536   |
| 17       | 028441                                  | .109307 | .106338                                 | 016479  | 003554                                  | 138688   |
| 18       | 023389                                  | .111487 | .109271                                 | 019192  | .003934                                 | 136870   |
| 19       | 013495                                  | .113452 | .115012                                 | 015198  | .008650                                 | 138117   |
|          |   |         |   |         |   |          |
| 20       | 003067                                  | .113180 | .121999                                 | 005152  | .013360                                 | 136899   |
| 21       | • 003082                                | •107009 | •129023                                 | 001933  | .013511                                 | 135373   |
| 22       | .005144                                 | .097948 | .131941                                 | 001941  | .014205                                 | 134865   |
| 23       | .003896                                 | .095155 | .137135                                 | .001692 | .012697                                 | 132633   |
| 24       | .003566                                 | .097213 | -138831                                 | .007241 | .006114                                 | 131534   |
| 25       | 000004                                  | 201117  | 10/350                                  | 022/07  | 000010                                  | 120025   |
| 25       | .000896                                 | .094667 | -126759                                 | .023697 | 002213                                  | 130935   |
| 26       | 005645                                  | .089208 | .108777                                 | .036444 | 002643                                  | 133961   |
| 27       | 013407                                  | .088804 | .094425                                 | .042648 | .002418                                 | 135222   |
| 28       | 020272                                  | .090347 | .089450                                 | .043208 | .009165                                 | 132636   |
| 29       | 020267                                  | .085322 | .089023                                 | .043008 | .017242                                 | 120821   |
| 30       | 015550                                  | .072777 | .082710                                 | .048466 | .026575                                 | 105848   |
| 31       | 010923                                  | .059414 | .068821                                 | .051836 | .035608                                 | 084491   |
| 32       | 005634                                  | .041113 | .053942                                 | .046525 | .041941                                 | 065637   |
| 33       | 002150                                  | .021684 | .038378                                 | .045846 | .047055                                 | 051975   |
| 34       | 005070                                  | .009307 | .030765                                 | .043486 | .055777                                 | 034819   |
| •        |   |         | *************************************** |         | ••••                                    |          |
| 35       | 009471                                  | 006653  | .022477                                 | .036686 | .056694                                 | 017520   |
| 36       | 010702                                  | 021050  | .010324                                 | .032083 | .048601                                 | 006374   |
| 37       | 011565                                  | 032064  | 000685                                  | .030688 | .038075                                 | 002231   |
| 38       | 010341                                  | 040560  | 009947                                  | .034157 | .031862                                 | 001211   |
| 39       | 007507                                  | 044123  | 018112                                  | .032631 | .025296                                 | 001900   |
|          | 2227.2                                  |         |   |         |   |          |
| 40       | 005833                                  | 044950  | 022350                                  | .026114 | .016659                                 | 000818   |
| 41       | 004046                                  | 046833  | 024378                                  | .017759 | .008271                                 | 000250   |
| 42       | 006931                                  | 045091  | 026199                                  | .013839 | .001735                                 | 002004   |
| 43       | 004417                                  | 042239  | 025746                                  | .010602 | .000174                                 | 004463   |
| 44       | .001932                                 | 033885  | 018496                                  | .008198 | 003205                                  | 006070   |
| 45       | .009714                                 | 019319  | 010567                                  | .004237 | 007832                                  | 008266   |
|          |   | 004449  | 003958                                  | 000742  | 015645                                  | 011939   |
| 46<br>47 | .013471<br>.013480                      | .010219 | •000477                                 | 004751  | 024708                                  | 019207   |
| 48       | .013070                                 | .025365 | .008492                                 | 005840  | 028591                                  | 021033   |
| 49       | .014599                                 | .031461 | .016135                                 | 007617  | 032202                                  | 020468   |
| 7,       | *014277                                 | .031401 | .010133                                 |         | .032602                                 | .020100  |
| 50       | .018222                                 | .033694 | .023275                                 | 014101  | 036166                                  | 019470   |
| 51       | .027327                                 | .037664 | .029194                                 | 026592  | 042514                                  | 018643   |
| 52       | .036978                                 | .038439 | .032577                                 | 038701  | 052328                                  | 021743   |
| 53       | .041802                                 | .042893 | .038945                                 | 047913  | 063436                                  | 026499   |
| 54       | .049164                                 | .049923 | .046787                                 | 054471  | 079487                                  | 026329   |
|          |   |         |   |         |   |          |
| 55       | .054035                                 | .052130 | .055231                                 | 066231  | 096652                                  | 017859   |
| 56       | .057748                                 | .050207 | .055621                                 | 075370  | 108642                                  | 005354   |
| 57       | .061667                                 | .041344 | .052484                                 | 071434  | 110745                                  | .005874  |
| 58       | .062793                                 | .035727 | .050525                                 | 059928  | 104414                                  | .011440  |
| 59       | .059588                                 | .038147 | .050375                                 | 041566  | 086476                                  | .020406  |
|          |   |         |   |         |   |          |
| 60       | .050785                                 | .045811 | .050034                                 | 030981  | 068192                                  | .024590  |
|          |   |         | 190                                     |         |   |          |

RUN NO. BZE 16M 11-02-62 0916-1025 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| M        | U, N    | U,RHO(W) | V • N   | V.RHO(W) | W.N      | W, RHO(W) | T,N      | T,RHO(W)         | N,RHO(W) |
|----------|---------|----------|---------|----------|----------|-----------|----------|------------------|----------|
|          |         |          |         |          |          |           |          |                  |          |
|          | 0.26534 | 0.59890  | 0.25222 | 0.56928  | 0.19128  | 0.43172   | 0.10646  | 0.24029          | 0.64946  |
|          | 10E 00  | 10E-01   | 10E 00  | 10E-01   | 10E 00   | 10E-01    | 10E 00   | 10E-01           | 10E-01   |
|          |         |          |         |          |          |           |          |                  |          |
| 0        | 377701  | 381797   | 000233  | .014686  | .581371  | .600515   | .915214  | .957046          | .992627  |
| 1        |         | 359295   |         | .007291  | .507252  | . 525895  | .785312  | . 824944         | .840058  |
| 2        | 315968  | 319185   | 008418  | .000860  | 405387   | . 421463  | .615070  | .650257          | .650838  |
| 3        |         |          | 014499  | 007647   | . 324744 | . 338595  | .483653  | .514465          | .508004  |
| 4        |         |          | 020941  |          | . 260469 | .272008   | .381118  | .407927          | .398252  |
|          |         |          |         |          |          |           |          |                  |          |
| 5        | 197451  | 199803   | 027746  | 022325   | .201108  | .210281   | .302900  | .325030          | .317847  |
| 6        | 159448  | 160855   | 029264  | 024118   | .150554  | .157052   | .236981  | .254714          | .251218  |
| 7        | 127100  | 128148   | 030947  | 026726   | .097228  | .102209   | .176241  | .190221          | .189314  |
| 8        | 104577  | 105811   | 031124  | 028227   | .045632  | .049839   | .116572  | .127239          | .128407  |
| 9        |         |          | 035553  |          | .005931  | .008633   | .057266  | .064561          | .068974  |
|          |         |          |         |          |          |           |          |                  |          |
| 10       | 049841  | 050129   | 036433  | 034532   | 021015   | 020181    | .008251  | .012331          | .019412  |
| 11       |         |          |         | 036620   |          |           |          | 035799           | 028885   |
| 12       | .017160 | .017737  | 033771  | 034487   | 070199   | 071557    | 079144   | 079114           | 073421   |
| 13       | .052219 | .052985  | 025083  | 027596   | 099176   | 101323    | 118658   | 119914           | 116479   |
| 14       | .073978 | .075283  | 016632  | 020415   | 118850   | 121084    | 144743   | 147618           | 143486   |
|          |         |          |         |          |          |           |          |                  |          |
| 15       | .086891 | .088807  | 006683  | 011181   | 131682   | 134345    | 163388   | 167824           | 161334   |
| 16       | .098011 | .099939  |         | 001282   |          |           |          |                  |          |
| 17       | .108652 | .109886  | .015442 |          |          |           |          | 195125           |          |
| 18       | .115746 | .115825  | .022224 |          |          |           |          | 208249           |          |
| 19       | .124251 | .123806  | .024223 |          |          |           |          | 217720           |          |
|          |         |          |         |          |          |           |          |                  |          |
| 20       | .131239 | .130928  | .028106 | .023796  | 138226   | 140273    | 220198   | 226725           | 229087   |
| 21       | .139625 | .139027  | .026910 | .023028  | 138324   | 139958    | 232510   | 239075           | 244138   |
| 22       | .145472 | .144242  | .025826 | .022613  | 138442   | 139833    | 244437   | 251638           | 257899   |
| 23       | .151750 | .150343  | .021640 | .019132  | 136142   | 137398    | 239081   | 247657           | 252106   |
| 24       | .153328 | .151920  | .011565 | .009954  | 136281   | 137339    | 226289   | 236286           | 238350   |
|          |         |          |         |          |          |           |          |                  |          |
| 25       | .140105 | .138849  | .001396 |          |          |           |          | 231944           |          |
| 26       | .119943 | .119040  | 000418  |          |          |           |          | 231791           |          |
| 27       | .106854 |          | .005270 |          |          |           |          | 227234           |          |
| 28       | .100315 | .098959  | .011061 |          |          |           |          | 220737           |          |
| 29       | .097763 | .096925  | .020400 | .019819  | 115874   | 119422    | 193567   | 205789           | 206322   |
|          | 20224   |          |         |          |          |           |          |                  |          |
| 30       | .089264 |          | .031249 |          |          |           |          | 184346           |          |
| 31       | .075631 | .074876  | .040585 |          |          |           |          | 156055           |          |
| 32       | .059287 |          | .049936 |          |          |           |          | 133414           |          |
| 33       | .040473 |          | .058981 |          |          |           |          | 118291           |          |
| 34       | .028177 | .029367  | .069118 | .066296  | 033350   | 034507    | 092462   | 101425           | 096826   |
| 35       | 014722  | 017763   | .070581 | 047450   | - 011045 | - 013231  | . 077004 | 004345           | 070501   |
| 36       | .014733 |          | .059677 | .057473  | .004051  |           |          | 086245<br>075917 |          |
|          | 001342  |          |         | .045758  |          |           |          | 064482           |          |
| 37<br>38 |         | 009584   | .047620 | .041154  | .011905  |           |          | 050843           |          |
| 39       |         | 018777   |         | .036890  |          |           |          |                  |          |
| 27       | 030804  | 021131   | •040655 | •030840  | .013416  | .007212   | -•036633 | 041442           |          |
| 40       | 036370  | 033050   | .034036 | .029665  | .011645  | . 008223  | 029326   | 038160           | 025891   |
| 41       |         | 033679   |         | .020780  |          |           |          |                  |          |
| 42       |         | 034260   |         |          | .006321  |           |          | 032720           |          |
| 43       |         | 032825   | .014644 |          | .003924  |           |          | 025473           |          |
| 44       |         | 023712   |         |          | .002660  |           |          | 018882           |          |
|          |         |          |         |          |          |           |          |                  |          |
| 45       | 015222  | 014275   | .003118 | .000072  | 000613   | 002728    | 009786   | 014867           | 018034   |
| 46       |         |          |         | 008727   |          |           |          |                  |          |
| 47       | .002811 |          |         | 019491   |          |           |          | 002128           |          |
| 48       | .013479 |          |         | 022916   |          |           |          | .007881          | .003658  |
| 49       | .020397 |          |         | 024724   |          |           | .022150  | .019214          | .015173  |
|          |         |          |         |          |          |           |          |                  |          |
| 50       | .026730 | .026370  | 022530  | 026777   | 010037   | 013031    | .031070  | .028747          | .022764  |
| 51       | .031098 | .031329  | 025866  | 031268   | 009046   | 012000    | .038189  | .036835          | .026916  |
| 52       | .032932 |          |         | 040970   |          |           | .047474  | .046961          | .034486  |
| 53       | .040199 | .040714  | 045772  | 051797   | 015637   | 019133    | .053777  | .053825          | .038736  |
| 54       | .051706 | .051985  | 062393  | 068559   | 016481   | 019656    | .062070  | .062808          | .045691  |
|          |         |          |         |          |          |           |          |                  |          |
| 55       | .062057 |          |         | 086662   |          |           | .071495  | .072286          | .056118  |
| 56       | .064295 |          | 094191  |          | .005133  |           | .077745  | .078759          | .063829  |
| 57       | .062256 |          | 101288  |          | .015874  |           | .080715  | .081982          | .067847  |
| 58       | .064655 |          | 101863  |          | .020678  |           | .080607  | .082705          | .066958  |
| 59       | .067149 | .063388  | 087620  | 088836   | .029027  | .027052   | .081981  | .084973          | .068766  |
| -        |         |          |         |          |          |           |          |                  |          |
| 60       | .068396 | .064001  | 071368  | 071705   | •034091  | .031920   | .079704  | .082732          | .066249  |
|          |         |          |         | 101      |          |           |          |                  |          |

RUN NO. 82E 16M 11-02-62 0916-1025 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| HORMA    | LILLO GONDATIONE   | COTANTANCE         |                    |                    |                    |                   |
|----------|--------------------|--------------------|--------------------|--------------------|--------------------|-------------------|
| M        | U,V                | U.W                | U.T                | V.W                | V . T              | N.T               |
|          | 0 23350            | 0.17/10            | 0.00173            | 0.14744            | 0 02217            | 0.70740           |
|          | 0.23259<br>10E 00  | 0.17638<br>10E 00  | 0.98172<br>10E-01  | 0.16765<br>10E 00  | 0.93317<br>10E-01  | 0.70768<br>10E-01 |
|          |                    |                    |                    |                    |                    |                   |
| 1        | .001533            | 056428             | 050803             | 018246             | 014983             | .026079           |
| 2        | .002095            | 094732             | 088363             | 032723             | 025888             | .043713           |
| 3        | 001829             | 111047             | 114310             | 047009             | 034226             | .056837           |
| 4        | 004925             | 117795             | 131710             | 054465             | 044830             | .067727           |
| 5        | 006813             | 116354             | 142691             | 058790             | 055813             | .080223           |
| 6        | 007699             | 105580             | 143522             | 058556             | 063214             | .090199           |
| 7        | 005657             | 087502             | 137726             | 062637             | 068976             | .094438           |
| 8        | 004917             | 071588             | 125319             | 067808             | 073419             | .095151           |
| 9<br>10  | 005315<br>005464   | 061052<br>047405   | 111765<br>100375   | 068285<br>066007   | 072406             | .091739           |
| 10       | -1003464           | 047403             |                    | 000007             | 071631             | .081813           |
| 11       | 009951             | 032920             | 089984             | 063520             | 070906             | .073278           |
| 12       | 020720             | 019614             | 081392             | 059087             | 063575             | .064213           |
| 13       | 031840             | 001927             | 070098             | 051423             | 053486             | .052062           |
| 14       | 036216             | •022220            | 056022             | 049554             | 043082             | .048233           |
| 15       | 030878             | .042254            | 040028             | 043672             | 035812             | .046344           |
| 16       | 020495             | · 050665           | 025358             | 032548             | 029000             | .043641           |
| 17       | 012373             | .048006            | 017228             | 019032             | 019556             | .037083           |
| 18       | 014682             | .045239            | 012444             | 007049             | 009996             | .028987           |
| 19       | 016291             | .041647            | 004117             | .003138            | 002636             | .021916           |
| 20       | 013156             | -036184            | .000397            | -012056            | .004715            | .014094           |
| 21       | 002227             | .028332            | .001424            | .015697            | .014515            | .010279           |
| 22       | .009853            | .018936            | 000622             | .022569            | .024617            | .010946           |
| 23       | .015661            | .013233            | 001833             | .034858            | .035114            | .010478           |
| 24       | .009665            | .003829            | 002018             | .044567            | .040082            | .006529           |
| 25       | .001416            | 001123             | 003585             | .047865            | .038274            | .004776           |
| 26       | 007017             | .000971            | 001020             | .046258            | .031394            | .002512           |
| 27       | 010818             | .007755            | .006591            | .045287            | .024444            | .001763           |
| 28       | 012864             | .023010            | .019247            | .039297            | .018573            | .001588           |
| 29       | 016799             | .037816            | .029805            | .033765            | .014400            | .000108           |
| 30       | 014189             | .037007            | .032306            | .031708            | .011179            | .000674           |
| 31       | 007161             | .022783            | .026698            | .034669            | .009511            | 005133            |
| 32       | ~. 003884          | .000314            | .014942            | .035877            | .003181            | 013985            |
| 33       | 003841             | 019488             | .001610            | .034941            | 002343             | 025056            |
| 34       | 000159             | 023866             | 004797             | .033121            | 006944             | 032715            |
| 35       | .001153            | 021646             | 010661             | .030257            | 008443             | 032947            |
| 36       | .004326            | 028961             | 014895             | .033524            | 003032             | 033828            |
| 37       | .008157            | 036387             | 019777             | .037004            | .006238            | 029201            |
| 38       | .007781            | 041166             | 022655             | .033914            | .012209            | 025754            |
| 39       | .004840            | 045160             | 024117             | .026907            | .009507            | 023698            |
| 40       | .004876            | 045534             | 023947             | .019228            | .005972            | 023873            |
| 41       | .005865            | 048304             | 021717             | .014263            | .006945            | 024463            |
| 42       | .004783            | 050600             | 022030             | .009916            | .007918            | 022083            |
| 43       | 003609             | 050823             | 026490             | .002615            | .004682            | 014804            |
| 44       | 015023             | 046843             | 031186             | 012892             | 000328             | 007864            |
| 45       | 022614             | 038412             | 030819             | 035273             | 006581             | 008220            |
| 46       | 025573             | 023887             | 027689             | 050821             | 011970             | 010741            |
| 47       | 026270             | 004044             | 019461             | 056690             | 011365             | 014669            |
| 48       | 027696             | .012254            | 008005             | 054011             | 009824             | 017776            |
| 49       | 033676             | .019131            | .000522            | 044759             | 007837             | 021258            |
| 50       | 041255             | .021110            | .004290            | 036522             | 005829             | 026208            |
|          | - 0444.05          | 022254             | 0107/0             | - 030000           | 002434             | 021000            |
| 51<br>52 | 044605<br>039199   | .022254<br>.021972 | .010769<br>.015876 | 030000             | 002634             | 031892            |
| 52<br>53 | 027686             | .021972            | .018818            | 020502<br>009420   | .005141<br>.019800 | 030120<br>025631  |
| 54       | 011806             | .019778            | .018091            | 009420             | .033699            | 025792            |
| 55       | .000518            | .018157            | .014464            | .014494            | .045328            | 030771            |
|          | 012027             | 01/205             |                    |                    |                    |                   |
| 56       | .013236            | .016395            | .015450            | .029715            | .055035            | 028594            |
| 57<br>50 | .026663            | .010095            | .015746            | .037034            | .060526            | 019324            |
| 58<br>59 | .042742<br>.053505 | .006219<br>003598  | .014819            | .041653<br>.040554 | .063757<br>.062625 | 012427<br>008068  |
| 60       | .061694            | 010747             | .023698            | • 036492           | .061616            | 003126            |
| 00       | .001074            | .010171            | .023070            | . 336472           | . 201010           | 003120            |

RUN NO. 82E 16M 11-02-62 0916-1025 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| HUNFIAL    | IZED QUADRI       | HIONE COV         | AN I MITCE        |                   |                   |                   |                   |                   |                   |
|------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| i <b>m</b> | U, N              | U,RHO(W)          | V , N             | V.RHO(W)          | W.N               | W, RHO(W)         | T . N             | T.RHO(W)          | N,RHO(W)          |
|            | 0.26534<br>10E 00 | 0.59890<br>10E-01 | 0.25222<br>10E 00 | 0.56928<br>10E-01 | 0.19128<br>10E 00 | 0.43172<br>10E-01 | 0.10646<br>10E 00 | 0.24029<br>10E-01 | 0.64946<br>10E-01 |
|            | - 024717          | - 040364          | - 010577          | - 013055          | 010043            | 015417            | - 014503          | - 010550          | .004280           |
| 1<br>2     |                   |                   | 010577            |                   | .010843           |                   | 014593<br>024259  |                   | .007116           |
| 3          |                   |                   | 032265            |                   | .028557           |                   | 031124            |                   | .009320           |
| 4          |                   |                   | 042669            |                   | .034418           |                   | 036011            |                   | .011005           |
| 5          |                   |                   | 054125            |                   | .045868           |                   | 039278            |                   | .012135           |
| 6          | - 000700          | - 104929          | 063563            | - 044711          | .053229           | 04.5.20.3         | 041448            | - 020534          | .012673           |
| 7          |                   |                   | 073035            |                   | .053271           |                   | 045001            |                   | .012575           |
| 8          |                   |                   | 084038            |                   | .053611           |                   | 046880            |                   | .014141           |
| 9          |                   |                   | ~.087297          |                   | .052915           |                   | 047614            |                   | .014270           |
| 10         | 049195            | 065809            | 087760            | 084625            | .048525           |                   | 046834            |                   | .014137           |
| 11         | 036163            | 053342            | 085442            | 082667            | .044831           | .054217           | 047150            | 033746            | .014216           |
| 12         |                   |                   | 072709            |                   | .037131           |                   | 045111            |                   | .013607           |
| 13         |                   |                   | 058632            |                   | .024747           | .033306           | 041303            | 029649            | .012469           |
| 14         | 007982            | 022615            | 046388            | 046001            | .019265           | .028193           | 037030            | 026597            | .011124           |
| 15         | .001490           | 011079            | 040359            | 039515            | .017217           | .026125           | 033686            | 024184            | .010171           |
| 16         | .011828           | .000753           | 035006            | 033657            | .018377           | .026231           | 031825            | 022880            | .009560           |
| 17         | .016011           | .006179           | 025809            | 024327            | .017026           | .023358           | 030852            | 022286            | .009156           |
| 18         | .018405           |                   | 016673            |                   | .013474           |                   | 029622            |                   | .008765           |
| 19         | .026814           |                   | 009229            |                   | .006262           |                   | 029148            |                   | .008667           |
| 20         | .029953           | .021491           | 000693            | .000938           | 004085            | .001356           | 030458            | 021889            | .009052           |
| 21         | .028629           | .020734           | .010700           | .012154           | 009825            | 003884            | 031256            | 022392            | .009401           |
| 22         | .023594           | .016448           | .023089           | .024127           | 009189            | 002957            | 029625            | 021046            | .009099           |
| 23         | .019905           | .013451           | .037740           |                   |                   |                   | 027405            |                   | .008450           |
| 24         | .016352           | .010909           | .045822           |                   |                   |                   | 027265            |                   | .008229           |
| 25         | .010083           | .006079           | .044401           | .043612           | 006461            | 003024            | 025409            | 018261            | .007575           |
| 26         | .007355           | .004997           | .036452           | .035975           | 006482            | 003535            | 021895            | 015665            | .006557           |
| 27         | .010063           | .009239           | .029837           | .029133           | 005128            | 002989            | 017895            | 012753            | .005360           |
| 28         | .019210           | .019741           | .025484           | .024145           | 000602            | .000127           | 012334            | 008808            | .003645           |
| 29         | .025090           | .027125           | .021587           | .019840           | .000715           | .000687           | 005982            | 004291            | .001747           |
| 30         | .025236           | .027828           | .018765           | .016763           | .003602           | .003006           | 000222            | 000103            | .000122           |
| 31         | .020719           | .022893           | .016545           | .014663           | 000357            | 001641            | .003738           | .002787           | 000967            |
| 32         | .012187           | .013219           | .008450           |                   | 006646            |                   | .005641           |                   | 001522            |
| 33         | 000632            | .000107           | .002011           | .000727           | 015736            | 018884            | .006082           | .004373           | 001751            |
| 34         |                   |                   | 003925            |                   |                   |                   | •006505           |                   | 001864            |
| 35         | 016445            | 014884            | 004117            | 005496            | 026947            | 029476            | .007883           | .005759           | 002263            |
| 36         | 021486            | 019926            | .004506           | .002304           | 030233            | 031931            | .006856           | .005062           | 001898            |
| 37         | 025314            | 024088            | .015943           | .013205           | 026913            | 028095            | .003487           | .002605           | 000883            |
| 38         | 026119            | 025378            | .020779           | .018577           | 029371            | 028780            | 000981            | 000736            | .000303           |
| 39         | 024451            |                   | .013074           |                   |                   |                   | 004551            |                   | .001364           |
| 40         | 021215            | 022359            | .003717           | .004610           | 036940            | 033617            | 008251            | 006015            | .002406           |
| 41         | 015427            | 017583            | 001792            | .000785           | 040673            | 036627            | 011573            | 008486            | .003324           |
| 42         |                   |                   |                   |                   |                   |                   | 013973            |                   | .004115           |
| 43         |                   |                   |                   |                   |                   |                   | 016043            |                   | .004786           |
| 44         |                   |                   |                   |                   |                   |                   | 018088            |                   | .005312           |
| 45         | 014015            | 019104            | 022591            | 018278            | 022921            | 019230            | 019369            | 014106            | .005634           |
| 46         |                   |                   |                   |                   |                   |                   | 015814            |                   | .004419           |
| 47         |                   |                   |                   |                   |                   |                   | 010345            |                   | .002723           |
| 48         | .007683           |                   |                   |                   |                   |                   | 004397            |                   | .001103           |
| 49         | .013694           |                   |                   |                   |                   |                   | 000361            |                   | .000013           |
| 50         | .013916           | .011497           | 012206            | 010526            | 019297            | 021830            | .003093           | .002187           | 000953            |
| 51         | .017494           |                   | 006761            |                   |                   |                   | .006422           |                   | 001873            |
| 52         | .019094           | .018808           | .002962           |                   | 014158            |                   | .009002           |                   | 002707            |
| 53         | .016824           | .017944           | .017244           |                   | 003970            |                   | .012040           |                   | 003581            |
| 54         | .008232           | .011548           | .029714           |                   | .000972           |                   | .017088           |                   | 005162            |
| 55         | 002551            | .002582           | .040826           | •042770           | 001341            | 009873            | .021556           | .015647           | 006441            |
| 56         | 009303            | 002116            | .051953           | .053619           | .001642           | 006970            | .024317           | .017771           | 007125            |
| 57         | 014886            |                   | .056614           | .058543           | .011709           | .002962           | .025429           |                   | 007402            |
| 58         | 020627            |                   | .058882           | .061152           | .020004           | .010909           | .025468           |                   | 007511            |
| 59         | 019455            |                   | .058159           | .060335           | .024637           | .015489           | .025598           |                   | 007538            |
| 60         | 013778            | 002929            | .055797           | .058307           | .029591           | .020571           | .025521           | .018714           | 007432            |

RUN NO. 82E 16M 11-02-62 0916-1025 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

### NORMALIZED AUTOCOVARIANCE

| H   | U        | V        | W        | T        | N        | RHO(W)   |
|-----|----------|----------|----------|----------|----------|----------|
|     | 0.24469  | 0.22109  | 0.12715  | 0.39388  | 0.28775  | 0.14659  |
|     | 10E 00   | 10E 00   | 10E 00   | 10E-01   | 10E 00   | 10E-01   |
| 0   | 1.000000 | 1.000000 | 1.000000 | 1.000000 | 1.000000 | 1.000000 |
| 1   | .850083  | . 358941 | .774693  | .870700  | .841818  | .850645  |
| 2   | .664995  | .658474  | .521905  | .695955  | .649461  | .662340  |
|     |          |          |          |          |          |          |
| 3   | .537177  | .486792  | .368692  | . 557686 | •505333  | .519111  |
| 4   | .430486  | -361456  | .267405  | . 447697 | . 395323 | .408372  |
| 5   | .326115  | .271359  | .189074  | .358571  | .316000  | .325780  |
| 6   | .240300  | .190537  | .128864  | .282229  | . 250945 | .256712  |
| 7   | .175575  | .115590  | .067779  | . 212635 | .190179  | .192885  |
| 8   | .118331  | .058215  | .005761  | . 145365 | .130288  | .130266  |
| 9   | .058904  | .017966  | 051916   | .078204  | .072239  | .068830  |
| 10  | .010962  | 009033   | 093728   | .021097  | .023587  | .017660  |
| 11  | 037331   | 029020   | 114668   | 030254   | 024799   | 031316   |
|     |          |          | 128698   | 074795   | 069440   | 076273   |
| 12  | 093896   | 042555   |          |          |          |          |
| 13  | 138026   | 058419   | 146655   | 116022   | 112762   | 119522   |
| 14  | 172099   | 069912   | 155097   | 146052   | 139474   | 147221   |
| 15  | 197005   | 083207   | 162336   | 169113   | 156657   | 166007   |
| 16  | 214741   | 095332   | 175953   | 184873   | 168431   | 179150   |
| 17  | 224078   | 103552   | 183610   | 198795   | 182215   | 193156   |
| 18  | 232309   | 108877   | 175126   | 211690   | 198467   | 208180   |
| 19  | 233334   | 114830   | 163927   | 221197   | 212241   | 220090   |
|     |          |          |          |          |          |          |
| 20  | 227336   | 127322   | 153729   | 229159   | 227221   | 232384   |
| 21  | 219522   | 144747   | 150400   | 240871   | 243101   | 246864   |
| 22  | 215721   | 164705   | 154498   | 253885   | 257155   | 260608   |
| 23  | 209478   | 178077   | 148486   | 253135   | 251201   | 255341   |
| 24  | 203484   | 185822   | 146538   | 245537   | 237288   | 242135   |
|     |          |          |          |          |          |          |
| 25  | 193437   | 193178   | 145112   | 244640   | 228931   | 235424   |
| 26  | 182685   | 188012   | 150418   | 247366   | 226261   | 233673   |
| 27  | 172319   | 181391   | 154589   | 244559   | 223027   | 229421   |
| 28  | 160717   | 171749   | 155387   | 238949   | 217686   | 223121   |
| 29  | 139674   | 155698   | 141446   | 222447   | 206383   | 209953   |
| 30  | 108254   | 132990   | 114032   | 199855   | 186848   | 189138   |
| 31  | 072618   | 105734   | 066889   | 171930   | 155274   | 158462   |
|     |          | 087205   | 034607   | 150030   | 128666   | 132987   |
| 32  | 046430   |          |          |          |          |          |
| 33  | 036895   | 076158   | 019850   | 134523   | 112759   | 116965   |
| 34  | 035618   | 068347   | 007104   | 116856   | 096250   | 099926   |
| 35  | 027087   | 058965   | .008352  | 102962   | 078547   | 082933   |
| 36  | 016305   | 053290   | .016767  | 092882   | 066925   | 071704   |
| 37  | 014323   | 052459   | .024995  | 081790   | 052940   | 058645   |
| 38  | 015553   | 059529   | .032473  | 069354   | 035221   | 042480   |
|     |          |          |          |          |          |          |
| 39  | 015873   | 067085   | .030584  | 060982   | 024885   | 032140   |
| 40  | 019255   | 070667   | .032193  | 056936   | 023722   | 030090   |
| 41  | 021759   | 068927   | .038825  | 053317   | 026617   | 031377   |
| 42  | 025714   | 062662   | .033924  | 045982   | 028275   | 030318   |
| 43  | 029447   | 058184   | .023239  | 038329   | 024447   | 024445   |
| 44  | 037127   | 060696   | .017650  | 031826   | 020835   | 019070   |
| 46  | - 0380/0 | - 044415 | 004530   | - 024104 | - 031050 | - 017300 |
| 45  | 038060   | 064615   | .006538  | 026194   | 021058   | 017388   |
| 46  | 038047   | 068026   | .003028  | 019149   | 020006   | 014553   |
| 47  | 047478   | 067243   | .000939  | 011042   | 011249   | 005945   |
| 48  | 060584   | 068987   | .009695  | 000958   | • 000299 | .005092  |
| 49  | 067396   | 066439   | .012285  | .010348  | .011678  | .016816  |
| 5.0 | - 044754 | - 050177 | .007161  | .020721  | 019502   | .025099  |
| 50  | 064756   | 058177   |          |          | .018592  |          |
| 51  | 056811   | 046332   | 002785   | . 030626 | .021378  | .030525  |
| 52  | 045113   | 033651   | 023140   | .042380  | .028141  | .038925  |
| 53  | 043035   | 022961   | 041766   | .050147  | .031483  | .044008  |
| 54  | 052616   | 016584   | 050594   | .060152  | .037635  | .051735  |
| 55  | 060408   | 010489   | 042870   | .069434  | .048341  | .061993  |
| 56  | 056801   | 002338   | 018710   | .076173  | .056509  | .069433  |
| 57  | 052141   | .006000  | .001806  | .079887  | .060819  | .073301  |
|     |          |          |          |          |          |          |
| 58  | 055688   | .011100  | .007559  | .083106  | .059770  | .072755  |
| 59  | 051624   | .008140  | .020020  | .086843  | .061499  | .074895  |
| 60  | 040681   | .002470  | .020021  | .084703  | .058873  | .072467  |
|     |          |          |          |          |          |          |

RUN NO. 82E 16M 11-02-62 0916-1025 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING COSPECTRUM

| K         | U, V        | U, W                     | U, T    | V, W     | V, T     | W.T                |
|-----------|-------------|--------------------------|---------|----------|----------|--------------------|
|           | 10E-02      | 10E-01                   | 105 00  |          |          |                    |
|           | 101-02      | 105-01                   | 10E-02  | 10E-02   | 10E-02   | 10E-02             |
| 0         | 041248      | 012141                   | 098448  | 012036   | 00/703   |                    |
| 1         | 041455      | 096495                   | 735884  |          | .006783  | .064912            |
| 2         | .084268     | 122652                   | 839275  | 277363   | 053018   | -615124            |
| 3         | .058412     | 136969                   |         | 271139   | 062808   | .743955            |
| 4         | .020683     |                          | 836508  | 059556   | .053497  | .773705            |
| •         | • 020683    | 082283                   | 466569  | .035504  | .102415  | . 529269           |
| 5<br>6    | .010966     | 040446                   | 202983  | 073778   | .057070  | .336980            |
|           | 064482      | 033319                   | 141277  | 108070   | .079643  | .277536            |
| 7-8       | 129118      | 011157                   | 075063  | 004836   | .048724  | -157026            |
| 9-11      | .022030     | 010906                   | 047716  | .032724  | .004155  | .093725            |
| 12-15     | .009413     | 005129                   | 046542  | 005760   | -017062  | .054655            |
| 16-20     | .009682     | 000705                   | 003285  | .019777  | .009681  | 024474             |
| 21-27     | .008869     | .000002                  | 011696  | .002403  |          | .036676            |
| 28-36     | 004681      | .000038                  | 004016  |          | .004256  | .024244            |
| 37-47     | 000175      | 000147                   |         | 002045   | .002074  | .014132            |
| 48-60     | .001267     |                          | 002762  | .000448  | .002071  | .006913            |
|           | *001267     | •000138                  | 000558  | .001618  | .001537  | .003896            |
|           |             |                          |         |          |          |                    |
| QUADRATU  | RE SPECTRUM |                          |         |          |          |                    |
| K         | U,V         | U.W                      | U,T     | V,W      | V,T      | W, T               |
|           |             |                          |         |          |          |                    |
|           | 10E-02      | 10E-02                   | 10E-02  | 10E-02   | 10E-02   | 10E-02             |
| 1         | 202863      | 071115                   | 291353  | 001070   |          |                    |
| 2         | 131531      | 064285                   |         | 026870   | 097152   | .155810            |
| 3         | 114288      |                          | 292018  | 279218   | 158219   | .203206            |
| 4         | 023486      | 331852                   | 379901  | 498445   | 231293   | .195389            |
| 5         |             | 540803                   | 348282  | 323352   | 200727   | -129027            |
| ,         | .014783     | 449555                   | 226370  | 124597   | 092963   | .093796            |
| 6         | .071554     | 410783                   | 175876  | - 030500 |          |                    |
| 7-8       | .056392     | 229202                   |         | 039500   | 001387   | .068026            |
| 9-11      | 048666      | 081020                   | 098545  | 006869   | •004562  | .018373            |
| 12-15     | .011195     |                          | 044227  | 026151   | -004417  | .004319            |
| 16-20     |             | 072313                   | 011655  | 011189   | 003642   | 002873             |
| 10-20     | .009940     | 008181                   | 002718  | 007652   | .001058  | .006112            |
| 21-27     | .007435     | 011345                   | 004819  | 005130   | 444700   |                    |
| 28-36     | 000194      | 006233                   |         | .005129  | 002858   | .003164            |
| 37-47     | 002172      |                          | 002289  | 002777   | 001536   | .001082            |
| 48-60     |             | .000236                  | .000031 | • 000298 | .000516  | .000227            |
| 40-00     | 000132      | •000956                  | 000740  | 001740   | .000027  | .000169            |
| POWER SPE | CTRUM       |                          |         |          |          |                    |
| ĸ         | U           | .,                       |         |          |          |                    |
| .,        | J           | ٧                        | W       | T        | N        | RHO(W)             |
|           | 10E-01      | 10E-01                   | 10E-01  | 10E-02   | 10E-01   | 105.00             |
| 0         | .044960     | 051554                   |         |          | 105-01   | 10E-02             |
| ì         |             | .051554                  | .009993 | .060427  | .041796  | .019976            |
| 2         | • 349686    | · 345288                 | .105712 | .630207  | .420324  | -214472            |
|           | . 392264    | <ul><li>330627</li></ul> | -146670 | .734299  | . 497494 | -258389            |
| 3         | •415046     | .298017                  | .172410 | .674987  | 471205   |                    |
| 4         | ·296730     | .207112                  | .128470 | .422211  |          | -245284            |
| 5         | .170117     | 144720                   |         |          | .291651  | •152865            |
| 6         | .170117     | -146738                  | -090912 | -266697  | -177047  | .093684            |
|           | -121409     | .141137                  | .082664 | -208824  | .145644  | .075373            |
| 7-8       | .085075     | .117517                  | .055811 | .141558  | .106167  |                    |
| 9-11      | • 059735    | .062726                  | -036765 | .083218  | .066628  | .053978            |
| 12-15     | .039131     | .037294                  | .024955 | .061792  | ·054393  | .033266<br>.026380 |
| 16-20     | .021200     | .025913                  | .021789 | .038418  |          |                    |
| 21-27     | .016163     | -015066                  | .012951 | .021586  | .031806  | .015719            |
| 28-36     | .012519     | .006383                  | .008923 |          | .019633  | .009442            |
| 37-47     | .006039     | .004476                  | .005473 | -014063  | .012237  | .005941            |
| 48-60     | .003528     | .003041                  | .003199 | .007911  | .008169  | .003764            |
|           |             | 303041                   | •003177 | .004772  | .005079  | .002300            |
|           |             |                          |         |          |          |                    |

RUN NO. 82E 16M 11-02-62 0916-1025 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

### COSPECTRUM

| K     | U, N   | U.RHC(W) | V,N     | V,RHO(W) | W, N    | W, RHD(W) | T.N     | T,RHO(W) | N,RHD(W) |
|-------|--------|----------|---------|----------|---------|-----------|---------|----------|----------|
|       | 10E-01 | 10E-02   | 10E-02  | 10E-03   | 10E-01  | 10E-02    | 10E-01  | 10E-02   | 10E-01   |
| 0     | 026095 | 060341   | .006316 | -022395  | .012576 | .032245   | .011739 | .030076  | .008926  |
| 1     | 201164 | 460817   | 378482  | 710624   | .144628 | . 346881  | .139772 | .341842  | .093716  |
| 2     | 236410 | 537018   | 402108  | 763746   | .189087 | .442569   | .173807 | .416056  | .112443  |
| 3     | 238408 | 539961   | 056555  | .009198  | .202423 | .469617   | .166858 | .393845  | .106892  |
| 4     | 126896 | 291221   | .096700 | .341522  | .135878 | .316980   | .104922 | .247148  | .066449  |
| 5     | 050352 | 118735   | .049685 | .178995  | .083650 | .197205   | .064573 | .153363  | .040504  |
| 6     | 039907 | 090750   | .206229 | .473657  | .070861 | .165669   | .050738 | .120437  | .032898  |
| 7-8   | 022403 | 050213   | .134023 | .302410  | .041197 | .095598   | .035889 | .084110  | .023787  |
| 9-11  | 013047 | 029785   | 026822  | 036137   | .024763 | .057371   | .021827 | .050608  | .014800  |
| 12-15 | 012522 | 029035   | .019366 | .062771  | .014435 | .033474   | .016971 | .038793  | .011909  |
| 16-20 | 000632 | 001608   | .004528 | .023995  | .010372 | .023442   | .010272 | .023663  | .007030  |
| 21-27 | 003003 | 007019   | 001274  | .006011  | .006747 | .015379   | .005956 | .013626  | .004277  |
| 28-36 | 001281 | 002769   | .003413 | .009014  | .003796 | .008746   | .003775 | .008701  | .002676  |
| 37-47 | 000896 |          | .002494 | .007876  | .002098 | .004649   | .002264 | .005116  | .001740  |
| 48-60 | 000251 | 000494   | .003454 | .008581  | .001326 | .002863   | .001352 | .003065  | .001069  |

#### QUADRATURE SPECTRUM

| K     | U,N     | U,RHO(W) | V,N      | V,RHO(W) | W, N    | W, RHO(W) | T,N    | T,RHO(W) | N+RHO(W |
|-------|---------|----------|----------|----------|---------|-----------|--------|----------|---------|
|       | 10E-02  | 10E-02   | 10E-02   | 10E-02   | 10E-02  | 10E-03    | 10E-02 | 10E-03   | 10E-03  |
| 1     | 146511  | 077600   | 303532   | 066666   | .108717 | . 463045  | 259703 | 419896   | .477605 |
| 2     | 240425  | 093019   | 486399   | 107688   | .293614 | .848577   | 199330 | 322313   | .366539 |
| 3     | 538546  | 157182   | 727613   | 160501   | .300248 | . 842035  | 149980 | 243018   | .275255 |
| 4     | 680708  | 174096   | 573260   | 130017   | .214133 | .581069   | 070229 | 113434   | .130710 |
| 5     | 497773  | 122029   | 220636   | 053001   | .189792 | . 479449  | 036517 | 058285   | .069365 |
|       | 257/21  | 000127   | 011014   | 001/21   | 080445  | 270200    | 054470 | 001310   | 104475  |
| 6     |         | 090127   | .011014  | .001421  | .089465 |           |        | 091318   | -104675 |
| 7-8   |         | 050241   | .040664  | .007285  | .007222 |           |        | 023276   | .027417 |
| 9-11  | 080271  | 020943   | .053678  | .009723  | 004751  | 000457    | 004809 | 008183   | .008477 |
| 12-15 | 010605  | 003973   | 018413   | 003669   | 006616  | 015636    | 008390 | 013945   | .014113 |
| 16-20 | 017770  | 003402   | .002721  | .000594  | 001566  | .008179   | 002779 | 005059   | .003374 |
| 21-27 | 007460  | 002101   | . 000390 | 000466   | .008798 | .019785   | 001162 | 001936   | .001710 |
| 28-36 | 007289  |          | 000882   |          | 000475  |           |        | 001720   | .002535 |
| 37-47 |         |          | .003132  |          |         |           |        |          |         |
|       | .002025 | .000324  |          | .000610  |         |           |        | •        | .000493 |
| 48-60 | 000998  | 000300   | .000158  | .000043  | .000746 | .001236   | 000292 | 000423   | .000694 |

RUN NO. 82E 16M 11-02-62 0916-1025 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

| M        | U,V      | U.W      | U, T     | V, W     | V, T     | W, T    |
|----------|----------|----------|----------|----------|----------|---------|
|          | 0.30940  | 0.16693  | 0.12424  | 0.16490  | 0.12273  | 0.66214 |
|          | 10E 00   | 10E-01  |
| 0        | 055430   | . 407451 | - 500451 | - 077039 | 027251   | .747143 |
| 0        | .055630  | ~.483651 | 508451   | 077938   |          |         |
| l .      | . 056532 | 288225   | 340090   | 061753   | 063322   | .382237 |
| 2        | .063834  | 100320   | 147973   | 026488   | 038149   | .141156 |
| 3        | .066736  | 005546   | 027800   | .003817  | 015525   | .012185 |
| 4        | .065425  | .013950  | .039074  | .021353  | 006938   | 070236  |
| 5        | .080071  | .118988  | .130608  | 019326   | 028493   | 113301  |
| 6        | .047079  | .116921  | .146341  | 012880   | .001498  | 086760  |
| 7        | 041071   | .067805  | .112560  | .044688  | .101829  | 072698  |
| 8        | 113642   | .016332  | .097019  | .056859  | .137518  | 080062  |
| 9        | 119868   | .076637  | .083768  | .033132  | .086952  | 121702  |
| 10       | 140720   | .023545  | .054618  | .068132  | .067980  | 039721  |
| 11       | 108161   | .082754  | .078714  | .021532  | .006448  | 055312  |
| 12       | 071319   | .081339  | .081285  | .025260  | 019386   | 064294  |
| 13       | 026143   | .072796  | .090402  | 002197   | 037589   | 061503  |
| 14       | .026870  | .102685  | .074907  | 019493   | 075757   | 142513  |
| • 17     | *020010  | •••••    | 1014701  | *******  | ******** |         |
| 15       | .087250  | .032080  | .009662  | 045983   | 095292   | 115746  |
| 16       | .062818  | 042208   | 041218   | 044255   | 093004   | .002274 |
| 17       | .048515  | 068891   | 088846   | 019229   | 040520   | .060967 |
| 18       | .005500  | 040899   | 087875   | .005309  | .001831  | .076235 |
| 19       | 030102   | .009332  | 041222   | .012741  | .013736  | .012330 |
| 20       | 058583   | 023624   | 058800   | .043378  | .037443  | .046170 |
| 21       | 045131   | 043666   |          |          | 002631   | .007473 |
|          |          |          | 063110   | 001833   |          |         |
| 22       | 018593   | .002967  | 006471   | .014374  | .032849  | 001124  |
| 23       | .013903  | .070107  | .083308  | .012963  | .024717  | 044734  |
| 24       | .050653  | .064845  | .126988  | 030511   | 004932   | 041297  |
| 25       | .056858  | .034725  | .108888  | 062474   | 014770   | 026473  |
| 26       | .039327  | 008652   | .034592  | 055658   | 042177   | .017752 |
| 27 .     | .038846  | 001404   | 002048   | 071574   | 047955   | 017423  |
| 28       | 010336   | 036943   | 037320   | 021997   | 032128   | 037447  |
| 29       | 029022   | 029284   | 035784   | 007732   | 000479   | 015705  |
| 30       | 048069   | 004655   | 039981   | .042082  | .044121  | 015842  |
|          |          |          |          |          |          |         |
| COSPECTR | UM       |          |          |          |          |         |
| K        | U,V      | J,W      | U, T     | V, W     | V, T     | W,T     |
|          |          |          |          |          |          |         |
|          | 10E-01   | 10E-01   | 10E-02   | 10E-02   | 10E-02   | 10E-02  |
| 0        | .000730  | 004436   | 030353   | .005109  | .000536  | .044157 |
| ì        | .039976  | 050598   | 350458   | 024302   | .056034  | .335687 |
| ž        | .081314  | 075174   | 601192   | 144814   | 023043   | .432385 |
| 3        | .119638  | 104227   | 994590   | 287293   | 286270   | .551795 |
| 4        | .086547  | 088792   | 892122   | 319518   | 446829   |         |
| 7        | .000347  | 000172   | 692122   | 317318   | 440029   | .462088 |
| 5        | 027765   | 064014   | 589144   | 107803   | 159401   | .376683 |
| 6        | 102611   | 076949   | 656856   | .089538  | .182999  | .430188 |
| 7        | 048345   | 079197   | 586209   | 026566   | .179688  | .381917 |
| 8        | .003639  | 049615   | 323636   | 123834   | .060965  | .230288 |
| 9-11     | .012867  | 023265   | 169503   | 122589   | 069704   | .231673 |
|          |          |          |          |          |          |         |
| 12-14    | .004159  | 020595   | 135641   | 055013   | 032013   | .101343 |
| 15-21    | 002512   | 017550   | 103908   | .022281  | .043444  | .111273 |
| 22-30    | 000236   | 009027   | 042339   | 002318   | .038625  | .096446 |
|          |          |          |          |          |          |         |

RUN NO. 82E 16M 11-02-62 0916-1025 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

| No.   U.ANDIUN   V.N.   V.ANDIUN   W.N.   W.ANDIUN   T.N.   T.ANDIUN   M.ANDIUN   T.N.   T.ANDIUN   T.N.   T.ANDIUN   M.ANDIUN   T.N.   T.ANDIUN   M.ANDIUN   T.N.   T.ANDIUN   M.ANDIUN   T.N.   T.ANDIUN   T.ANDIUN   T.ANDIUN   T.N.   T.ANDIUN     |          |          |   |           |   |          |           |            |          |             |
|--|----------|----------|---|-----------|---|----------|-----------|------------|----------|-------------|
| 0.32199 0.71302 0.31807 0.70434 0.17161 0.38001 0.12772 0.28282 0.73299 10E-01 10E-01 10E-00 10E-01 10E-00 10E-01 10E-00 10E-01 10E-01 10E-00 10E-01 10E-02 10E-01 10E-01 10E-02 10E-01 10E-01 10E-02 10E-01 10E-01 10E-02 10E-01 10E-02 10E-01 10E-02 10E-01 10E-01 10E-02 10E-01 10E-01 10E-02 10E-01 10E-02 10E-01 10E-02 10E-01 10E-02 10E-01 10E-01 10E-01 10E-01 10E-02 10E-01 10E-01 10E-01 10E-02 10E-01  | M        | U, N     | U,RHO(W)                                | V,N       | V,RHO(W)                                | W.N      | W. RHO(W) | T.N        | T.RHO(W) | N.RHO(W)    |
| 10E 00   |          |          |   |           |   |          |           | -          | 1.00     |             |
| 10E 00   |          | 0.32199  | 0.71302                                 | 0.31807   | 0.70434                                 | 0.17161  | 0.38001   | 0.12772    | 0.28282  | 0.73299     |
| 0485646517051020179023889 .633565 .701942 .778007 .887718 .979845 1310875335786042031051153 .289464 .333901 .373274 .449577 .527836 211445213074011679021146 .064155 .092146 .101544 .148852 .202659 3007635014335004275008247018288009172024313003725 .033503 5 .106815 .119205054287049131079200093433087184093109092485 6 .110599 .12739605533703777503777205559505589906492906717 .052514 .075443 .01762905717503777203559505589906492906717 .052514 .075443 .017629057170032434047615091102101377109001 .8 .018787 .044917 .049856 .0085404914806197115170316841715920  |          |          | 10E-01                                  |           |   |          |           |            |          |             |
| 1 -310875 -335786 -042031 -051153  |          |          |   |           |   |          |           |            |          |             |
| 1 -310875 -335786 -042031 -051153  | 0        | 485646   | 517051                                  | 020179    | 023889                                  | .633565  | .701942   | .778007    | .887718  | .979845     |
| 2114452130924 -011697 -021146 .004155 .092146 .101564 .148852 .202659 3 -0073635 -014554 .0047275 .008247 -016208 -009172 -024313 -0.09725 .033630 4 .029355 .033659 .004949 -006008 -061058 -006175 -008983 -089445 -062353 5 .106815 .119205 -055287 -0049131 -079200 -093433 -087184 -093109 -0.092485 6.110599 .127396 -0555337 -0397775 -037742 -055585 -053889 -064929 -0.067517 .052514 .074443 .017829 .045760 .032434 -047615 -091102 -103457 -109001 8. 018787 .044917 .04985 .080854 -049148 -061971 -151703 -1168417 -159208 9 .006505 .032011 .031234 .050998 -1066925 -117339 -159069 -180834 -156430 10 .000734 .018153 .031004 .044261 -060149 -057324 -103232 -116243 -119656 11 .038813 .0353848 .015259 .013174 -0083062 -078526 -077610 -090992 -111384 12 .049956 .0401214 .019730 .008001 -0085300 -083092 -062694 -078601 -112822 13 .078860 .088007 .001194 -0102403 -008317 -005030 -0083092 -062694 -078606 -122190 14 .088700 .088807 .001197 -029137 -111855 -127283 -109022 -131640 -168047 11 .088700 .088807 -007197 -029137 -111855 -127283 -109022 -131640 -168047 11 .0019162 .001555 -022283 -046350 .09598 .052104 -0.02684 -0.04468 .072559 11 .004941 .0024402 -0.04685 .005959 .055950 .008408 -0.02684 -0.04468 .072559 .004408 .003640 .009559 .005950 .001633 .00502 .107633 .0055173 .004407 .002503 .003673 .00310 .003603 .005959 .005950 .000604 .001632 .107633 .0055173 .00646 .00250 .006604 .006132 .006604 .006132 .005675 .001608 .006604 .006132 .005675 .001608 .006604 .006132 .005675 .001608 .005605 .005707 .007850 .006605 .0078790 .00163 .005510 .005724 .002524 .003640 .006132 .005707 .007850 .0067790 .00163 .005709 .007807 .0016772 .003500 .007879 .007807 .007808 .007807 .007807 .007807 .007807 .007807 .007807 .007807 .007807 .007808 .007807 .007807 .007807 .007807 .007807 .007807 .007807 .007807 .007807 .007807 .007807 .       |          |          |   |           |   |          |           |            |          |             |
| 3007a35014354004275008247018298009172024313003725 .033603   4 .029355 .033659009494006068066105 .06637506980308945062353   5 .106815 .119205054287049131079200093433087184093109022435   6 .110599 .127396055337039775037742055585053899064929067511   7 .052514 .07443 .017829 .045760032434 -047615091102103457109001   8 .018787 .044917 .049956 .08085409418600197115170316841719208   9 .006505 .032011 .031234 .050998106425117339159006168034156430   10 .000734 .018153 .031004 .044261060149057324103232116243119656   11 .038613 .053484 .015259 .01317408306207852607761009098211034   12 .04956 .016214 .019730 .00800108530008300207852607761009098211384   13 .078860 .086075 .031194 .010850083472065973063187080466121802   14 .088706 .088605007197029137111855127283 -1109022131640168047   15 .052682 .041984024402047885065055084408026894043408072559   16 .019162 .001555022883046350 .095998 .052140 .081312 .074134 .757173   17 .014673038991 .03246 .012008 .104172 .095660 .016625 .107961 .029216   18004441032563 .093047 .068659 .104172 .095660 .016625 .107961 .029216   19 .049737 .023370 .118541 .090809002567 .001283 .035543 .041782   20 .002608016517 .137212 .112195 .013033 .023952 .047942 .053654 .043789   210380000047659 .068604 .049151005675001881 .021150 .015792 .031725   22 .002506003510 .057224 .032254 .030264 .001004 .022467 .019429 .086250   23 .067379 .015971 .006090 .012796 .035193 .000052 .050251 .068381 .013172   24 .102093 .1121216 .055388 .049788 .01889 .023656 .005888 .004463 .004478   25 .087880 .098895094227073504006112012635 .003103 .002487 .016629 .007642 .007633   26 .017412034126 .071074 .01501 .007664 .020459 .005818 .019947 .056473   27 .024109024455 .112110097678 .001578 .001645 .002787 .005888 .004968 .022880 .006899 .005818 .  |          |          |   |           |   |          |           |            |          |             |
| ** .029355 .033659004949006068061058066375089833089465062353  *** .1068815 .119295055287049131077200093433087184093109092485 6. 110599 .127396055337039775037742055585053899064929067511 7 .052514 .074443 .017829 .045760032434047615091102103457109001 8. 018787 .044917 .04985 .080894049148061971 .151703168417159208 9 .006505 .032011 .031234 .050998106925117339159069180814156430 10 .000734 .018153 .031004 .04426106014907826077610090992111384 12 .048956 .049148 .01973 .008001085300083902062694078601112822 13 .078860 .086075 .03119 4 .01085006353006390206269407860612219 .112822 13 .078860 .086075 .03119 4 .01085006347205573 .003187 .00806612219 .112852 .112843 .1190221311640168047 .11865 .019162 .001555 .0022883 .046350 .069598 .052140 .081312 .074134 .057173 .1786 .00641332530 .034240012008 .010472 .095606 .106625 .107661 .057916 .00441032530 .034240 .012008 .010472 .095606 .106625 .107661 .07916 .00441032530 .034240 .012008 .010472 .095606 .106625 .107661 .07916 .106627 .001765 .003682 .004441 .035730 .034240 .001813 .003680 .005958 .005958   |          |          |   |           |   |          |           |            |          |             |
| 5 .106815 .119205054287049131079200093433087184093109092485 6 .110599 .1273940553370537752057762055385053899064929067511 7 .052514 .074433 .017829 .04576003243404761505102103457109001 8 .018787 .04443 .049856 .080854049148047615059102103457109001 8 .018787 .044917 .049856 .080854049148061971151703168417159208 9 .005505 .032011 .031234 .05509810649251178391590069180834156453   |          |          |   |           |   |          |           |            |          |             |
| 6 .110599 .127396 .055337 .039775 .037742 .055585 .0553899 .004929 .0075101 7 .052514 .074443 .017829 .045760 .032434 .047615 .091027 .103547 .103057 .103057 .103058 9 .006505 .032011 .031234 .050998 .106925 .117539 .159069 .180834 .156430 10 .000734 .018153 .031004 .044261 .006149 .057324 .110323 .116253 .119656 11 .038813 .053484 .015259 .013174 .0083062 .078526 .077610 .090982 .111328 12 .048956 .0161214 .019730 .008001 .005300 .083092 .062694 .078601 .112822 13 .078860 .086075 .031194 .010850 .003472 .065973 .063187 .008066 .122190 14 .088706 .08805 .007197 .029137 .111855 .127283 .109022 .131640 .168047 15 .052682 .041984 .024402 .047885 .065055 .084408 .026804 .043408 .0127259 16 .019162 .001555 .022883 .046350 .069598 .052140 .081312 .074134 .057173 17 .014673 .038891 .034246 .012008 .104172 .095606 .106622 .107641 .037618 18 -006441 .032563 .093047 .068459 .077790 .081123 .097020 .105583 .084564 .019040 .099737 .023370 .118541 .090809 -0002567 .001283 .035430 .0041472 .027853 .023762 .0047937 .023370 .118541 .090809 -0002567 .001283 .035430 .041472 .027853 .023762 .001551 .031511 .000909 .002567 .001881 .021150 .015792 .031725 .02222 .00506 .001511 .137212 .112195 .013033 .023952 .047942 .0534554 .003472 .027853 .084564 .012620 .001510 .05722 .03725254 .003242 .011040 .032487 .005467 .001510 .05722 .037252 .0015792 .001772 .001761 .001761 .00290 .0046604 .009151 .005875 .001881 .021150 .015792 .031725 .007509 .005500 .005709 .005500 .005792 .001772 .005875 .001881 .021150 .015792 .001772 .001772 .001772 .005875 .001881 .001779 .005806 .00177 .008809 .004604 .009151 .005875 .001881 .0015792 .001772 .001772 .004608 .005408 .004608 .009151 .005875 .001881 .0015792 .001772 .001772 .001772 .005808 .004608 .009151 .005808 .000508 .000 | •        | .02,333  | •033037                                 |           | *************************************** | 001030   |           | -1007033   | 007777   | - 1002333   |
| 6 .110599 .127396 .055337 .039775 .037742 .055585 .0553899 .004929 .0075101 7 .052514 .074443 .017829 .045760 .032434 .047615 .091027 .103547 .103057 .103057 .103058 9 .006505 .032011 .031234 .050998 .106925 .117539 .159069 .180834 .156430 10 .000734 .018153 .031004 .044261 .006149 .057324 .110323 .116253 .119656 11 .038813 .053484 .015259 .013174 .0083062 .078526 .077610 .090982 .111328 12 .048956 .0161214 .019730 .008001 .005300 .083092 .062694 .078601 .112822 13 .078860 .086075 .031194 .010850 .003472 .065973 .063187 .008066 .122190 14 .088706 .08805 .007197 .029137 .111855 .127283 .109022 .131640 .168047 15 .052682 .041984 .024402 .047885 .065055 .084408 .026804 .043408 .0127259 16 .019162 .001555 .022883 .046350 .069598 .052140 .081312 .074134 .057173 17 .014673 .038891 .034246 .012008 .104172 .095606 .106622 .107641 .037618 18 -006441 .032563 .093047 .068459 .077790 .081123 .097020 .105583 .084564 .019040 .099737 .023370 .118541 .090809 -0002567 .001283 .035430 .0041472 .027853 .023762 .0047937 .023370 .118541 .090809 -0002567 .001283 .035430 .041472 .027853 .023762 .001551 .031511 .000909 .002567 .001881 .021150 .015792 .031725 .02222 .00506 .001511 .137212 .112195 .013033 .023952 .047942 .0534554 .003472 .027853 .084564 .012620 .001510 .05722 .03725254 .003242 .011040 .032487 .005467 .001510 .05722 .037252 .0015792 .001772 .001761 .001761 .00290 .0046604 .009151 .005875 .001881 .021150 .015792 .031725 .007509 .005500 .005709 .005500 .005792 .001772 .005875 .001881 .021150 .015792 .001772 .001772 .001772 .005875 .001881 .001779 .005806 .00177 .008809 .004604 .009151 .005875 .001881 .0015792 .001772 .001772 .004608 .005408 .004608 .009151 .005875 .001881 .0015792 .001772 .001772 .001772 .005808 .004608 .009151 .005808 .000508 .000 | 5        | 104915   | 110205                                  | - 054297  | 040131                                  | - 079200 | 003433    | - 097194   | - 003100 | - 003495    |
| 7  |          |          |   |           |   |          |           |            |          |             |
| 8 .018787 .044917 .044956 .080054 -0.049148061971151703168417159208  |          |          |   |           |   |          |           |            |          |             |
| 9 .006505 .032011 .031234 .050998106925117539159069180834156430 10 .000734 .018153 .031004 .044261060149057324103232116243119656 11 .038813 .033844 .015259 .013174080302078526077610 .090982111384 12 .048956 .061214 .019730 .008001085300083092062694078601112820 13 .078860 .08805500719702913711855127283109022131640168047 14 .088706 .088805007197029137111855127283109022131640168047 15 .052682 .041944024402047885065055084408026894043408072559 16 .019162 .001555022883046350 .065959084408026894043408072559 17 .014673038891 .034246 .012008 .104172 .095660 .106652 .107961 .092916 18006441032563 .093047 .068459 .077990 .081123 .097020 .106583 .084564 19 .049737 .023370 .118541 .090809002557 .001283 .035530 .041472 .027853 20 .002608016517 .137212 .112195 .013033 .023952 .047942 .053654 .043789 21038000047459 .068604 .049151005875001881 .021150 .015792 .031725 .22002506003510 .057224 .05254 .003242 .001904 .032487 .019429 .088260 .01632 .035439 .046646 .049151 .020393 .115216055388 .0491978 .018889027040 .003628 .005051068381 .051117 .27 .076108 .024562115076097627 .033633 .030882 .040578 .034207 .013723 .27026108 .0204455112110097678 .001251005888 .010200035888 .009895094227075859005889005409 .002469 .002469017273005409 .002469 .002469 .005888 .009888010200035888 .00989304269601727301954801957000688 .010200035888 .00989304269601727301954801957000688 .010200035888   |          |          |   |           |   |          |           |            |          |             |
| 10 .000734 .018153 .031004 .044261060149057324103232116243119566 11 .038813 .053484 .015259 .013174083062078526077610090982111384 12 .048956 .081214 .019730 .008001085300083092062694078601112822 13 .078860 .086075 .031194 .010850063472065973064974078601112822 14 .088706 .088805007197029137111855127283109022131640168047 15 .052682 .04198402440204788506505508400802268*4043408072559 16 .019162 .001555022883046350 .005958 .052140 .081312 .0774134 .057173 17014673038891 .034246 .012008 .104172 .095860 .106625 .107961 .002916 18006441032563 .093047 .068459 .07790 .081123 .097202 .106583 .084564 19 .049737 .023370 .118541 .090809002567 .001283 .035430 .041472 .027853 20 .002608016517 .137212 .112195 .013033 .023952 .047942 .053654 .043789 21038000047459 .08604 .0491510058175001881 .02110 .015792 .031725 22002506003510 .057224 .052254 .003242 .001904 .032487 .019429 .048260 23 .067379 .075971 .006090 .012796031579001881 .02110 .06381 .051117 24 .102093 .11521605538804197801889027040060047077642078701 25 .087880 .098895094227073504006112012635031303044463054979 26 .019457 .024562112076097627 .033633 .030820 .004578 .034604 .034697 27026108020445112110097678001889027040060047077642078701 28 .06002706070709804082723 .028799032425 .016088034207 .013723 27026108020445112110097678001511005409 .009289001163009399 28066027086139042696017273019548019456027530021787054773  COSPECTRUM  K  |          |          |   |           |   |          |           |            |          |             |
| 11   | 4        | •006505  | .035011                                 | .031234   | .050998                                 | 106925   | 111234    | 124064     | 180834   | 156430      |
| 11   | 10       | 000724   | 010163                                  | 031004    | 044341                                  | - 040140 | 067334    | 102222     | 11/2/2   | 110/5/      |
| 122  |          |          |   |           |   |          |           |            |          |             |
| 13   |          |          |   |           |   |          |           |            |          |             |
| 14 .088706 .088805007197029137111855127283109022131640168047 15 .052682 .0419840244020478850650550844080226894043408072559 16 .019162 .001555022883046350 .066958 .052140 .081312 .074134 .057173 17014673038891 .034246 .012008 .104172 .095660 .106625 .107961 .092916 18006441032563 .093047 .068459 .077990 .081123 .097020 .106583 .084564 19 .049737 .023370 .118541 .090809002567 .001283 .0335430 .041472 .027853 20 .002608016517 .137212 .112195 .013033 .023952 .047942 .053654 .043789 21038000047459 .068604 .049151005875001881 .021150 .015792 .031725 22002506003510 .057224 .052254 .003242 .001904 .032487 .019429 .048260 23 .067379 .075971 .006090 .012796035193040052050251068381051117 24 .102093 .115216055388041978018899027040060047077642078701 25 .087880 .098895094227073504006112012635031303044463055495 26 .019457 .024562115076097627 .033633 .030882 .040578 .034207 .013723 27026108020455112110097678001251005409 .009289001163009399 28060027066077098804082723028799032425016088022880041289 2909171907892607585905585300554400879000688012000035888 30099932086139042696017273019548019456027530021787054773  COSPECTRUM  K U.N U.RHO(M) V.N V.RHO(M) M.N N.RHO(M) T.N T.RHO(M) N.RHO(M)  10E-01 10E-02 10E-02 10E-02 10E-01 10E-02 10E-01 10E-02 10E-02  0017712034126 .071074 .011501 .007664 .020459 .005818 .019954 .086262 .154486360577499922085760 .083181 .121476 .072671 .205218 .686595 .456678 .0096763068921 .115176 .288174 .116890 .306829 .029593 .1564965456678096763068921 .115176 .288174 .116890 .306829 .02953 .15649654566780096763068921 .115176 .288174 .116890 .306829 .029593 .1564965456678096763068921 .115176 .288174 .116890 .306829 .029593 .15649654566780096763085760 .085185 .150455 .055395 .055395 .065382 .169065 .505395 .150656   |          |          |   |           |   |          |           |            |          |             |
| 15   |          |          |   |           |   |          |           |            |          |             |
| 16   | 14       | .088706  | .088805                                 | 007197    | 029137                                  | 111855   | 127283    | 109022     | 131640   | 168047      |
| 16   |          |          |   |           | 20,500                                  |          | - 0       |            |          |             |
| 17014673038891 .032426 .012008 .104172 .095660 .106625 .107961 .092916 1 .092916 .049737 .023370 .118541 .090809 .0077900 .081123 .097020 .106583 .084564 .049737 .023370 .118541 .090809 .002567 .001283 .035430 .041472 .027853 .005060 .005608 .0046737 .023370 .118541 .090809 .002567 .001283 .035430 .041472 .027853 .005060 .005100 .0057224 .052654 .003242 .001904 .032487 .015792 .031725 .002506 .003510 .057224 .052254 .003242 .001904 .032487 .019429 .048260 .23 .0673379 .075971 .006090 .012796 .035193 .040052 .050251 .068381 .051117 .00507379 .015791 .006090 .012796 .035193 .040052 .050251 .068381 .051117 .00507379 .015797 .002507 .005267 .0018889 .0027040 .0060047 .077642 .005787 .025056 .019457 .024562 .115076 .097627 .033633 .030882 .040578 .034207 .013723 .019459 .002697 .022645 .012457 .022456 .1115076 .097627 .033633 .030882 .040578 .034207 .013723 .0060027 .060707 .0060047 .007604 .002729 .0050707 .005070 .005099 .001638 .009389 .00163 .009389 .004289 .001638 .022880 .041289 .0091719 .006027 .060707 .098804 .002551 .005409 .009289 .00163 .009389 .0041289 .0091719 .078926 .007859 .005585 .005544 .008790 .009688 .010200 .035888 .0099932 .086139 .042696 .017273 .019548 .019456 .027530 .021787 .054773 .0054773 .005477 .057016 .058275 .150496 .043427 .140773 .546493 .054486 .360577 .499622 .0858760 .083181 .214376 .072671 .205218 .865595 .054486 .360577 .499622 .0858760 .083181 .214376 .072671 .205218 .865595 .054486 .360577 .499622 .0858760 .083181 .214376 .072671 .205218 .865595 .054665 .456678 .096763 .006927 .154486 .360577 .499622 .0858760 .083181 .214376 .072671 .205218 .865595 .054665 .456678 .096763 .006927 .154685 .056697 .109041 .194733 .005115 .169832 .508904 .015487 .036626 .456488 .005974 .2151949 .005587 .090441 .215212 .05665 .126056 .3050894 .005588 .093944 .015488 .015489 .005587 .090441 .215212 .0555515 .150656 .305304 .005589 .005588 .023728 .005585 .150656 .05731 .138879 .005515 .150655 .005515 .150655 .005515 .150655 .005515 .150655 .005515 .150655  |          |          |   |           |   |          |           |            | 043408   | 072559      |
| 18   | 16       | .019162  | .001555                                 | 022883    | 046350                                  | .069598  | .052140   | .081312    | .074134  | .057173     |
| 19   | 17       | 014673   | 038891                                  | .034246   | .012008                                 | .104172  | .095660   | .106625    | .107961  | .092916     |
| 20   | 18       | 006441   | 032563                                  | .093047   | .068459                                 | .077990  | .081123   | .097020    | .106583  | .084564     |
| 21038000047459 .068604 .049151005875001881 .021150 .015792 .031725 .002252002506003510 .057224 .003242 .003904 .032487 .019429 .048260 .032427 .001904 .032487 .019429 .048260 .032427 .001904 .032487 .019429 .048260 .019439 .040052050251068381051117 .102093 .115216055388041978018889027040060047077642078701 .006094 .015216055388041978018889027040060047077642078701 .006094 .019457 .024562115076097627 .033633 .030882 .040578 .034207 .013723 .024562115076097627 .033633 .030882 .040578 .034207 .013723 .024562024608024564112110097678001251005409 .009289001163009339 .006027060707098804082723028799032425016088022880041289 .091719078926075859055853005544008790009688010200035888 .0099932086139042696017273019548019456027530021787054773 .0099932086139042696017273019548019456027530021787054773 .009268010200035888 .0099932086139042696017273019548019456027530021787054773 .0092681044790299923412077057016 .058295 .156096 .043427 .140773 .546493 .054674 .0144790299923412077057016 .058295 .156096 .043427 .140773 .546493 .0144790299923412077057016 .058295 .156096 .043427 .140773 .546493 .0144790299923412077057016 .058295 .156096 .043427 .140773 .546493 .0144790299923412077057016 .058295 .156096 .0543427 .140773 .546493 .056829 .056608 .043427 .140773 .546493 .056829 .056608 .043427 .140773 .546493 .056829 .056608 .043427 .140773 .546493 .056829 .056608 .0566  | 19       | .049737  | .023370                                 | .118541   | .090809                                 | 002567   | .001283   | .035430    | .041472  | .027853     |
| 21038000047459 .068604 .049151005875001881 .021150 .015792 .031725 .002252002506003510 .057224 .003242 .003904 .032487 .019429 .048260 .032427 .001904 .032487 .019429 .048260 .032427 .001904 .032487 .019429 .048260 .019439 .040052050251068381051117 .102093 .115216055388041978018889027040060047077642078701 .006094 .015216055388041978018889027040060047077642078701 .006094 .019457 .024562115076097627 .033633 .030882 .040578 .034207 .013723 .024562115076097627 .033633 .030882 .040578 .034207 .013723 .024562024608024564112110097678001251005409 .009289001163009339 .006027060707098804082723028799032425016088022880041289 .091719078926075859055853005544008790009688010200035888 .0099932086139042696017273019548019456027530021787054773 .0099932086139042696017273019548019456027530021787054773 .009268010200035888 .0099932086139042696017273019548019456027530021787054773 .0092681044790299923412077057016 .058295 .156096 .043427 .140773 .546493 .054674 .0144790299923412077057016 .058295 .156096 .043427 .140773 .546493 .0144790299923412077057016 .058295 .156096 .043427 .140773 .546493 .0144790299923412077057016 .058295 .156096 .043427 .140773 .546493 .0144790299923412077057016 .058295 .156096 .0543427 .140773 .546493 .056829 .056608 .043427 .140773 .546493 .056829 .056608 .043427 .140773 .546493 .056829 .056608 .043427 .140773 .546493 .056829 .056608 .0566  |          |          |   |           |   |          |           |            |          |             |
| 22 002506 003510  .057224  .052254  .003242  .001904  .032487  .019429  .048260  .067379  .075971  .006090  .012796 035193 040052 050251 068381 051117  .019429  .048260  .019437  .015216 055388 041978 018889 02724 050251 068381 051117  .019429  .048260  .019457  .024562 115076 097627  .033633  .030882  .040578  .034207  .013723  .019457  .024562 115076 097627  .033633  .030882  .040578  .034207  .013723  .028799 024508 020445 112110 097678 001251 005409  .009289 001163 009339  .040678  .034207  .013723  .028799 032425 016088 022880 041289  .099719 078926 075859 055853 005544 008790 009888 0022880 041289  .099719 078926 075859 055853 005544 008790 009688 010200 035888  .0099932 086139 042696 017273 019548 019456 027530 021787 054773  .019548 019456 027530 021787 054773  .019548 019456 027530 021787 054773  .019548 019456 027530 021787 054773  .019548 019456 027530 021787 054773  .019548 019456 027530 021787 054773  .019548 019456 027530 021787 054773  .019548 019456 027530 021787 054773  .019548 019456 027530 021787 054773  .019548 019456 027530 021787 054773  .019548 019456 027530 021787 054773  .019548 019456 027530 021787 054773  .019548 019456 027530 021787 054773  .019548  .019546 027530 021787 054773  .019548  .019546 027530 021787 054773  .019548  .019546 027530 021787 054773  .019548  .019546 027530 021787 054773  .019549  .026525  .156096  .043427  .140773  .546493  .046618  .019546 026859 0666262 017674  .028859 065882  .014096  .043427  .140773  .546493  .056859  .056829  .095818  .019954 154251 413134 228154 119391  .092229  .234571  .103109  .265126  .721938  .055914  .019549  .0466262  .016649  .0466262  .016649  .016649  .016649  .016649  | 20       | .002608  | 016517                                  | .137212   | .112195                                 | .013033  | .023952   | .047942    | .053654  | .043789     |
| 22 002506 003510  .057224  .052254  .003242  .001904  .032487  .019429  .048260  .067379  .075971  .006090  .012796 035193 040052 050251 068381 051117  .02093  .115216 055388 041978 018889 027040 060047 077642 078701  .024960  .019457  .024562 115076 097627  .033633  .030882  .040578  .034207  .013723  .024045 12010 097678 001251 005409  .009289 001163 009339  .060027 026108 020445 112110 097678 001251 005409 00163 009339  .040463 001289 001719 078926 075859 055853 005544 008790 009688 010200 035888  .0099932 086139 042696 017273 019548 019456 027530 021787 054773  .005902 086139 042696 017273 019548 019456 027530 021787 054773  .005902  .0099932 086139 042696 017273 019548 019456 027530 021787 054773  .005902  .0099932 086139 042696 017273 019548 019456 027530 021787 054773  .005902  .005818  .019954  .008662  .0099932 412077 057016  .058295  .156096  .043427  .140773  .546493  .009902 154486 360577 499622 085760  .083181  .214376  .072671  .205218  .686595  .159466 154251 413134 228154 119391  .092229  .234571  .103109  .265126  .721938  .005904 154251 413134 228154 119391  .092229  .234571  .103109  .265126  .721938  .009944 154383 356231  .137649  .0555597  .090041  .215232  .067697  .170830  .503384  .099944 215794 162080  .014289  .067291  .150825  .052265  .126056  .362504  .014959 045661 105438 215449 047831  .058169  .136565  .057913  .138879  .347767  .015910  .007586  .003728  .055515  .150455  .150455  .057913  .138879  .347767  .015910  .007586  .007586  .023728  .055515  .150455  .150455  .057913  .138879  .347767  .015910  .007586  .007586  .023728  .055515  .150455  .150455  .057913  .138879  .347767  .015910  .007586  .007586  .023728  .055515  .150455  .150455  .057913  .138879  .347767  .015910  .007586  .007586  .0   | 21       | 038000   | 047459                                  | .068604   | .049151                                 | 005875   | 001881    | .021150    | .015792  | .031725     |
| 23   | 22       |          |   |           |   |          |           |            |          |             |
| 24 .102093 .115216055388041978018889027040060047077642078701 25 .087880 .098895094227073504006112012635031303044463054959 26 .019457 .024562115076097627 .033633 .030882 .040578 .034207 .013723 27026108020445112110097678001251005409 .009289001163009339 2806602706070709804082723028799032425016088022880041289 29091719078926075859055853005544008790009688010200035888 30099932086139042696017273019548019456027530021787054773  COSPECTRUM  K U.N U.RHO(W) V.N V.RHO(W) W.N W.RHO(W) T.N T.RHO(W) N.RHO(W)  10E-01 10E-02 10E-02 10E-02 10E-01 10E-02 10E-01 10E-02 10E-02 0017712034126 .071074 .011501 .007664 .020459 .005818 .019954 .086262 1144790298923412077057016 .058295 .156096 .043427 .140773 .546493 2154486360577499622085760 .083181 .214376 .072671 .205218 .686595 3169665456678096763068921 .115176 .288174 .116890 .306829 .902593 4154251413134228154119391 .092229 .234571 .103109 .265126 .721938 5149124349394076723041953 .057604 .162355 .065382 .169061 .481069 6176873406058 .498386 .114006 .071940 .194733 .065115 .169832 .508904 7154383356291 .137649 .055597 .090041 .215232 .067697 .170830 .503384 8095944213794162080014280 .067291 .150825 .052265 .126056 .362504 9-11045661105438215449047831 .058169 .136565 .057913 .138879 .347767 12-14041857092706072562017674 .027859 .063938 .024991 .058392 .169276 15-21028859065884 .072377 .019810 .029187 .067586 .023728 .055515 .150655   |          |          |   |           |   |          |           |            |          |             |
| 25 .087880 .098895094227073504006112012635031303044463054959 26 .019457 .024562115076097627 .033633 .030882 .040578 .034207 .013723 27026108020445112110097678001251005409 .009289001163009339 280060270060707098804082723028799032425016088022880041289 29091719078926075859055853005544008790009688010200035888 30099932086139042696017273019548019456027530021787054773  COSPECTRUM  K U.N U.RHO(W) V.N V.RHO(W) W.N W.RHO(W) T.N T.RHO(W) N.RHO(W)  10E-01 10E-02 10E-02 10E-02 10E-01 10E-02 10E-01 10E-02 10E-02 0017712034126 .071074 .011501 .007664 .020459 .005818 .019954 .086262 1144790298923412077057016 .058295 .156096 .043427 .140773 .546493 2154486360577499622085760 .083181 .214376 .072671 .205218 .686595 3169665456678096763068921 .115176 .288174 .116890 .306829 .902593 4154251413134228154119391 .092229 .234571 .103109 .265126 .721938 5149124349394076723041953 .057604 .162355 .065382 .169061 .481069 6176873400058 .498386 .114006 .071940 .194733 .065115 .169832 .508904 7154251413134228154119391 .092229 .234571 .103109 .265126 .721938 8095944213794162080014280 .067291 .150825 .055265 .126056 .362504 8095944213794162080014280 .067291 .150825 .055265 .126056 .362504 12-14041857092706072562017674 .027859 .063938 .024991 .058392 .169276 15-21028859065484 .072377 .019810 .029187 .067586 .023728 .055515 .150455   |          |          |   |           |   |          |           |            |          |             |
| 26   |          |          |   | ********* |   | ******   |           | •••••      |          | *********** |
| 26   | 25       | .087880  | -098895                                 | 094227    | 073504                                  | 006112   | 012635    | 031303     | 044463   | 054959      |
| 27   |          |          |   |           |   |          |           |            |          |             |
| 28   |          |          |   |           |   |          |           |            |          |             |
| 29091719078926075859055853005544008790009688010200035888  30099932086139042696017273019548019456027530021787054773  COSPECTRUM  K U.N U.RHO(W) V.N V.RHO(W) W.N W.RHO(W) T.N T.RHO(W) N.RHO(W)  10E-01 10E-02 10E-02 10E-02 10E-01 10E-02 10E-01 10E-02 10E-02  0017712034126 .071074 .011501 .007664 .020459 .005818 .019954 .086262 1144790298923412077057016 .058295 .156096 .043427 .140773 .546493 2154486360577499622085760 .083181 .214376 .072671 .205218 .686595 3169665456678096763068921 .115176 .288174 .116890 .306829 .902593 4154251413134228154119391 .092229 .234571 .103109 .265126 .721938 5149124349394076723041953 .057604 .162355 .065382 .169061 .481069 6176873406058 .498386 .114006 .071940 .194733 .065115 .169832 .508904 7154383356291 .137649 .0555597 .090041 .215232 .067697 .170830 .503384 8095944213794162080014280 .067291 .150825 .052265 .126056 .362504 9-11045661105438215449047831 .058169 .136565 .057913 .138879 .347767 12-14041857092706072562017674 .027859 .063938 .024991 .058392 .169276 15-21028859065484 .072377 .019810 .02785 .067586 .023728 .055515 .150455   |          |          |   |           |   |          |           |            |          |             |
| 099932086139042696017273019548019456027530021787054773  COSPECTRUM  K  |          |          |   |           |   |          |           |            |          |             |
| COSPECTRUM  K U.N U.RHO(W) V.N V.RHO(W) W.N W.RHO(W) T.N T.RHO(W) N.RHO(W)  10E-01 10E-02 10E-02 10E-02 10E-01 10E-02 10E-01 10E-02 10E-02  0017712034126 .071074 .011501 .007664 .020459 .005818 .019954 .086262 1144790298923412077057016 .058295 .156096 .043427 .140773 .546493 2154486360577499622085760 .083181 .214376 .072671 .205218 .686595 3169665456678096763068921 .115176 .288174 .116890 .306829 .902593 4154251413134228154119391 .092229 .234571 .103109 .265126 .721938  5149124349394076723041953 .057604 .162355 .065382 .169061 .481069 6176873406058 .498386 .114006 .071940 .194733 .065115 .169832 .508904 7154383356231 .137649 .055597 .090041 .215232 .067697 .170830 .503384 8095944213794162080014280 .067291 .150825 .052265 .126056 .362504 9-11045661105438215449047831 .058169 .136565 .057913 .138879 .347767  | 2 7      | *****    | -1010720                                | -1017077  | - 10 2 2 0 2 2                          | 003344   |           | .00,000    | .010200  | - 6033000   |
| COSPECTRUM  K U.N U.RHO(W) V.N V.RHO(W) W.N W.RHO(W) T.N T.RHO(W) N.RHO(W)  10E-01 10E-02 10E-02 10E-02 10E-01 10E-02 10E-01 10E-02 10E-02  0017712034126 .071074 .011501 .007664 .020459 .005818 .019954 .086262 1144790298923412077057016 .058295 .156096 .043427 .140773 .546493 2154486360577499622085760 .083181 .214376 .072671 .205218 .686595 3169665456678096763068921 .115176 .288174 .116890 .306829 .902593 4154251413134228154119391 .092229 .234571 .103109 .265126 .721938  5149124349394076723041953 .057604 .162355 .065382 .169061 .481069 6176873406058 .498386 .114006 .071940 .194733 .065115 .169832 .508904 7154383356231 .137649 .055597 .090041 .215232 .067697 .170830 .503384 8095944213794162080014280 .067291 .150825 .052265 .126056 .362504 9-11045661105438215449047831 .058169 .136565 .057913 .138879 .347767  | 30       | 099932   | 086139                                  | 042696    | 017273                                  | 019548   | 019456    | 027530     | 021787   | 054773      |
| K         U,N         U,RHO(W)         V,N         V,RHO(W)         W,N         W,RHO(W)         T,N         T,RHO(W)         N.RHO(W)           10E-01         10E-02         10E-02         10E-01         10E-02         10E-01         10E-02         10E-02         10E-02           0        017712        034126         .071074         .011501         .007664         .020459         .005818         .019954         .086262           1        144790        298923        412077        057016         .058295         .156096         .043427         .140773         .546493           2        154486        360577        499622        085760         .083181         .214376         .072671         .205218         .686595           3        169665        456678        096763        068921         .115176         .288174         .116890         .306829         .902593           4        154251        413134        228154        119391         .092229         .234571         .103109         .265126         .721938           5        149124        349394        076723        041953         .057604         .162355         .065382         .1690  | ,0       | .0,,,,,  | .000137                                 | 1012070   | 101/2/3                                 | .01,540  | 1017170   | ********** |          | .031113     |
| K         U,N         U,RHO(W)         V,N         V,RHO(W)         W,N         W,RHO(W)         T,N         T,RHO(W)         N.RHO(W)           10E-01         10E-02         10E-02         10E-01         10E-02         10E-01         10E-02         10E-02         10E-02           0        017712        034126         .071074         .011501         .007664         .020459         .005818         .019954         .086262           1        144790        298923        412077        057016         .058295         .156096         .043427         .140773         .546493           2        154486        360577        499622        085760         .083181         .214376         .072671         .205218         .686595           3        169665        456678        096763        068921         .115176         .288174         .116890         .306829         .902593           4        154251        413134        228154        119391         .092229         .234571         .103109         .265126         .721938           5        149124        349394        076723        041953         .057604         .162355         .065382         .1690  |          |          |   |           |   |          |           |            |          |             |
| K         U,N         U,RHO(W)         V,N         V,RHO(W)         W,N         W,RHO(W)         T,N         T,RHO(W)         N.RHO(W)           10E-01         10E-02         10E-02         10E-01         10E-02         10E-01         10E-02         10E-02         10E-02           0        017712        034126         .071074         .011501         .007664         .020459         .005818         .019954         .086262           1        144790        298923        412077        057016         .058295         .156096         .043427         .140773         .546493           2        154486        360577        499622        085760         .083181         .214376         .072671         .205218         .686595           3        169665        456678        096763        068921         .115176         .288174         .116890         .306829         .902593           4        154251        413134        228154        119391         .092229         .234571         .103109         .265126         .721938           5        149124        349394        076723        041953         .057604         .162355         .065382         .1690  | COSPECT  | RIJM     |   |           |   |          |           |            |          |             |
| 10E-01 10E-02 10E-02 10E-02 10E-01 10E-02 10E-01 10E-02 10E-02  0017712034126 .071074 .011501 .007664 .020459 .005818 .019954 .086262 1144790298923412077057016 .058295 .156096 .043427 .140773 .546493 2154486360577499622085760 .083181 .214376 .072671 .205218 .686595 3169665456678096763068921 .115176 .288174 .116890 .306829 .902593 4154251413134228154119391 .092229 .234571 .103109 .265126 .721938  5149124349394076723041953 .057604 .162355 .065382 .169061 .481069 6176873406058 .498386 .114006 .071940 .194733 .065115 .169832 .508904 7154383356231 .137649 .055597 .090041 .215232 .067697 .170830 .503384 8095944213794162080014280 .067291 .150825 .052265 .126056 .362504 9-11045661105438215449047831 .058169 .136565 .057913 .138879 .347767  | 000, 20, |          |   |           |   |          |           |            |          |             |
| 10E-01 10E-02 10E-02 10E-02 10E-01 10E-02 10E-01 10E-02 10E-02  0017712034126 .071074 .011501 .007664 .020459 .005818 .019954 .086262 1144790298923412077057016 .058295 .156096 .043427 .140773 .546493 2154486360577499622085760 .083181 .214376 .072671 .205218 .686595 3169665456678096763068921 .115176 .288174 .116890 .306829 .902593 4154251413134228154119391 .092229 .234571 .103109 .265126 .721938  5149124349394076723041953 .057604 .162355 .065382 .169061 .481069 6176873406058 .498386 .114006 .071940 .194733 .065115 .169832 .508904 7154383356231 .137649 .055597 .090041 .215232 .067697 .170830 .503384 8095944213794162080014280 .067291 .150825 .052265 .126056 .362504 9-11045661105438215449047831 .058169 .136565 .057913 .138879 .347767  | K        | U. N     | U.RHO(W)                                | V.N       | V-RHO(W)                                | W.N      | W. RHO(W) | T.N        | T.RHO(W) | N.RHO(W)    |
| 0017712034126 .071074 .011501 .007664 .020459 .005818 .019954 .086262 1144790298923412077057016 .058295 .156096 .043427 .140773 .546493 2154486360577499622085760 .083181 .214376 .072671 .205218 .686595 3169665456678096763068921 .115176 .288174 .116890 .306829 .902593 4154251413134228154119391 .092229 .234571 .103109 .265126 .721938 5149124349394076723041953 .057604 .162355 .065382 .169061 .481069 6176873406058 .498386 .114006 .071940 .194733 .065115 .169832 .508904 7154383356231 .137649 .055597 .090041 .215232 .067697 .170830 .503384 8095944213794162080014280 .067291 .150825 .052265 .126056 .362504 9-11045661105438215449047831 .058169 .136565 .057913 .138879 .347767   |          | ••••     | • |           |   |          |           |            | .,       |             |
| 0017712034126 .071074 .011501 .007664 .020459 .005818 .019954 .086262 1144790298923412077057016 .058295 .156096 .043427 .140773 .546493 2154486360577499622085760 .083181 .214376 .072671 .205218 .686595 3169665456678096763068921 .115176 .288174 .116890 .306829 .902593 4154251413134228154119391 .092229 .234571 .103109 .265126 .721938 5149124349394076723041953 .057604 .162355 .065382 .169061 .481069 6176873406058 .498386 .114006 .071940 .194733 .065115 .169832 .508904 7154383356231 .137649 .055597 .090041 .215232 .067697 .170830 .503384 8095944213794162080014280 .067291 .150825 .052265 .126056 .362504 9-11045661105438215449047831 .058169 .136565 .057913 .138879 .347767   |          |          |   |           |   |          |           |            |          |             |
| 0017712034126 .071074 .011501 .007664 .020459 .005818 .019954 .086262 1144790298923412077057016 .058295 .156096 .043427 .140773 .546493 2154486360577499622085760 .083181 .214376 .072671 .205218 .686595 3169665456678096763068921 .115176 .288174 .116890 .306829 .902593 4154251413134228154119391 .092229 .234571 .103109 .265126 .721938 5149124349394076723041953 .057604 .162355 .065382 .169061 .481069 6176873406058 .498386 .114006 .071940 .194733 .065115 .169832 .508904 7154383356231 .137649 .055597 .090041 .215232 .067697 .170830 .503384 8095944213794162080014280 .067291 .150825 .052265 .126056 .362504 9-11045661105438215449047831 .058169 .136565 .057913 .138879 .347767   |          | 10F-01   | 10F-02                                  | 10E-02    | 10E-02                                  | 10F-01   | 10E-02    | 10E-01     | 10F-02   | 10E-02      |
| 1144790298923412077057016 .058295 .156096 .043427 .140773 .546493 2154486360577499622085760 .083181 .214376 .072671 .205218 .686595 3169665456678096763068921 .115176 .288174 .116890 .306829 .902593 4154251413134228154119391 .092229 .234571 .103109 .265126 .721938  5149124349394076723041953 .057604 .162355 .065382 .169061 .481069 6176873406058 .498386 .114006 .071940 .194733 .065115 .169832 .508904 7154383356231 .137649 .055597 .090041 .215232 .067697 .170830 .503384 8095944213794162080014280 .067291 .150825 .052265 .126056 .362504 9-11045661105438215449047831 .058169 .136565 .057913 .138879 .347767  12-14041857092706072562017674 .027859 .063938 .024991 .058392 .169276 15-21028859065484 .072377 .019810 .029187 .067586 .023728 .055515 .150455   |          |          | 100 00                                  |           |   |          |           |            |          |             |
| 1144790298923412077057016 .058295 .156096 .043427 .140773 .546493 2154486360577499622085760 .083181 .214376 .072671 .205218 .686595 3169665456678096763068921 .115176 .288174 .116890 .306829 .902593 4154251413134228154119391 .092229 .234571 .103109 .265126 .721938  5149124349394076723041953 .057604 .162355 .065382 .169061 .481069 6176873406058 .498386 .114006 .071940 .194733 .065115 .169832 .508904 7154383356231 .137649 .055597 .090041 .215232 .067697 .170830 .503384 8095944213794162080014280 .067291 .150825 .052265 .126056 .362504 9-11045661105438215449047831 .058169 .136565 .057913 .138879 .347767  12-14041857092706072562017674 .027859 .063938 .024991 .058392 .169276 15-21028859065484 .072377 .019810 .029187 .067586 .023728 .055515 .150455   | 0        | 017712   | 034126                                  | .071074   | .011501                                 | .007664  | .020459   | .005818    | .019954  | .086262     |
| 2154486360577499622085760 .083181 .214376 .072671 .205218 .686595 .169665456678096763068921 .115176 .288174 .116890 .306829 .902593 .154251413134228154119391 .092229 .234571 .103109 .265126 .721938 .092229 .234571 .103109 .265126 .721938 .092229 .234571 .103109 .265126 .721938 .092229 .234571 .103109 .265126 .721938 .092229 .234571 .103109 .265126 .721938 .092229 .234571 .103109 .265126 .721938 .092229 .234571 .103109 .265126 .721938 .092229 .234571 .103109 .265126 .721938 .092229 .234571 .103109 .265126 .721938 .092229 .234571 .103109 .265126 .721938 .092229 .234571 .103109 .265126 .721938 .092229 .234571 .103109 .265126 .721938 .092229 .234571 .103109 .265126 .721938 .092229 .234571 .103109 .265126 .721938 .005115 .169832 .508904 .095594 .095594 .092229 .234571 .103109 .265126 .106961 .481069 .092594 .092594 .092594 .092691 .150825 .052265 .126056 .362504 .092594 .213794 .162080 .014280 .067291 .150825 .052265 .126056 .362504 .092661 .105438 .215449 .047831 .058169 .136565 .057913 .138879 .347767 .12-14 .041857 .092706 .072562 .017674 .027859 .063938 .024991 .058392 .169276 .150251 .028859 .065484 .072377 .019810 .029187 .067586 .023728 .055515 .150455   |          |          |   |           |   |          |           |            |          |             |
| 3  |          |          |   |           |   |          |           |            |          |             |
| 4154251413134228154119391 .092229 .234571 .103109 .265126 .721938  5149124349394076723041953 .057604 .162355 .065382 .169061 .481069  6176873406058 .498386 .114006 .071940 .194733 .065115 .169832 .508904  7154383356231 .137649 .055597 .090041 .215232 .067697 .170830 .503384  8095944213794162080014280 .067291 .150825 .052265 .126056 .362504  9-11045661105438215449047831 .058169 .136565 .057913 .138879 .347767  12-14041857092706072562017674 .027859 .063938 .024991 .058392 .169276  15-21028859065484 .072377 .019810 .029187 .067586 .023728 .055515 .150455  |          |          |   |           |   |          |           |            |          |             |
| 5149124349394076723041953 .057604 .162355 .065382 .169061 .481069 6176873406058 .498386 .114006 .071940 .194733 .065115 .169832 .508904 7154383356231 .137649 .055597 .090041 .215232 .067697 .170830 .503384 8095944213794162080014280 .067291 .150825 .05265 .126056 .362504 9-11045661105438215449047831 .058169 .136565 .057913 .138879 .347767 12-14041857092706072562017674 .027859 .063938 .024991 .058392 .169276 15-21028859065484 .072377 .019810 .029187 .067586 .023728 .055515 .150455  |          |          |   |           |   |          |           |            |          |             |
| 6176873406058 .498386 .114006 .071940 .194733 .065115 .169832 .508904   7154383356231 .137649 .055597 .090041 .215232 .067697 .170830 .503384   8095944213794162080014280 .067291 .150825 .052265 .126056 .362504   9-11045661105438215449047831 .058169 .136565 .057913 .138879 .347767    12-14041857092706072562017674 .027859 .063938 .024991 .058392 .169276   15-21028859065484 .072377 .019810 .029187 .067586 .023728 .055515 .150455  | 7        | 134231   | 412124                                  | 220134    | 117371                                  | .072227  | • 237711  | .103107    | . 203120 | . 121730    |
| 6176873406058 .498386 .114006 .071940 .194733 .065115 .169832 .508904   7154383356231 .137649 .055597 .090041 .215232 .067697 .170830 .503384   8095944213794162080014280 .067291 .150825 .052265 .126056 .362504   9-11045661105438215449047831 .058169 .136565 .057913 .138879 .347767    12-14041857092706072562017674 .027859 .063938 .024991 .058392 .169276   15-21028859065484 .072377 .019810 .029187 .067586 .023728 .055515 .150455  |          | - 140134 | _ 340304                                | - 074722  | - 041053                                | 057404   | 142255    | 045393     | 140041   | 481040      |
| 7154383356231 .137649 .055597 .090041 .215232 .067697 .170830 .503384<br>8095944213794162080014280 .067291 .150825 .052265 .126056 .362504<br>9-11045661105438215449047831 .058169 .136565 .057913 .138879 .347767<br>12-14041857092706072562017674 .027859 .063938 .024991 .058392 .169276<br>15-21028859065484 .072377 .019810 .029187 .067586 .023728 .055515 .150455   |          |          |   |           |   |          |           |            |          |             |
| 8095944213794162080014280  |          |          |   |           |   |          |           |            |          |             |
| 9-11045661105438215449047831 .058169 .136565 .057913 .138879 .347767<br>12-14041857092706072562017674 .027859 .063938 .024991 .058392 .169276<br>15-21028859065484 .072377 .019810 .029187 .067586 .023728 .055515 .150455   |          |          |   |           |   |          |           |            |          |             |
| 12-14041857092706072562017674 .027859 .063938 .024991 .058392 .169276 15-21028859065484 .072377 .019810 .029187 .067586 .023728 .055515 .150455  |          |          |   |           |   |          |           |            |          |             |
| 15-21028859065484 .072377 .019810 .029187 .067586 .023728 .055515 .150455  | 9-11     | 045661   | 105438                                  | 215449    | 047831                                  | .058169  | . 136565  | .057913    | .138879  | . 347767    |
| 15-21028859065484 .072377 .019810 .029187 .067586 .023728 .055515 .150455  |          |          |   |           |   | 00555    | 0/100=    |            |          |             |
|  |          |          |   |           |   |          |           |            |          |             |
| 22-30010837025288 .082384 .020144 .022357 .053881 .019252 .046544 .117978  |          |          |   |           |   |          |           |            |          |             |
|  | 22-30    | 010837   | 025288                                  | .082384   | .020144                                 | .022357  | .053881   | .019252    | .046544  | .117978     |

RUN NO. 82E 16M 11-02-62 0916-1025 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

| M          | U.V      | U, W    | U.T     | V, W    | V.T      | W, T    |
|------------|----------|---------|---------|---------|----------|---------|
|            | 0.30940  | 0.16693 | 0.12424 | 0.16490 | 0.12273  | 0.66214 |
|            | 10E 00   | 10E CO  | 10E 00  | 10E 00  | 10E 00   | 10E-01  |
| 1          | 003095   | 076652  | 124466  | 020283  | 014678   | .103345 |
| 2          | 000108   | 023090  | 108797  | .042718 | .056931  | .033870 |
| 3          | .018892  | 095358  | 126657  | .064837 | .066510  | .027372 |
| 4          | .014686  | 105117  | 105970  | .048055 | .064707  | 018654  |
| 5          | .028376  | 052960  | 074113  | .003394 | .068839  | 022246  |
| 6          | .071543  | 055863  | 042357  | .040972 | .078867  | 022235  |
| 7          | .041241  | 034829  | 016789  | 027969  | 002556   | .013118 |
| 8          | .001706  | 050155  | 044814  | 074517  | 073155   | 001683  |
| 9          | 056278   | 065864  | 053813  | 083156  | 115677   | 003221  |
| 10         | 095188   | 023435  | 045349  | 089113  | 111215   | 007910  |
| -          |          | 0.0100  |         |         | 004374   | 017227  |
| 11         | 134399   | 069402  | 098002  | 075133  | 084376   | .017227 |
| 12         | 137715   | 065266  | 057211  | 004642  | 040998   | .004613 |
| 13         | 119865   | 026965  | 021214  | .000775 | 031871   | 004016  |
| 14         | 081849   | 029661  | 001820  | .012075 | 020674   | 031764  |
| 15         | 038492   | .036392 | .073093 | .047516 | .013160  | 073490  |
| 16         | .041681  | .052352 | .095417 | .073061 | .054384  | 007332  |
| 17         | .052135  | .053310 | .070434 | .066849 | .060647  | .018172 |
| 18         | .031648  | .071296 | .064425 | 022817  | 012657   | .047097 |
| 19         | .064904  | .055401 | .054509 | 002996  | 021772   | .053133 |
| 20         | .085456  | .062131 | .033338 | .013462 | 014749   | .030928 |
|            | = =      |         |         |         |          |         |
| 21         | .081039  | .054958 | .049381 | .038855 | .042627  | .022200 |
| 22         | .114842  | .018363 | .026655 | .083226 | .095359  | 003218  |
| 23         | .092804  | .055288 | .029864 | .082255 | .099004  | .030870 |
| 24         | .098591  | .024547 | .021984 | .064032 | .088921  | 005662  |
| 25         | .089492  | 018511  | 012339  | .003506 | .044337  | 008923  |
| 26         | .062726  | .067187 | 019883  | .005718 | .023318  | .001175 |
| 27         | .046890  | .011698 | 032717  | .002653 | .007757  | .024483 |
| 28         | .054260  | .006527 | 008945  | .024575 | .026810  | 024683  |
| 29         | .028877  | 013162  | 020865  | 008649  | 012590   | 004645  |
| 30         | 016457   | 057850  | 011900  | 068935  | 085130   | 037143  |
| QUADRATURE | SPECTRUM |         |         |         |          |         |
| - <b>K</b> | U, Y     | U, W    | U.T     | V, W    | V,T      | WeT     |
|            | 10E-01   | 10E-02  | 10E-02  | 10E-02  | 10E-02   | 10E-02  |
|            |          |         |         |         |          |         |
| 1          | 063139   | 421459  | 301320  | 081407  | 132145   | 000620  |
| 2          | 049382   | 591604  | 484454  | 194886  | 096297   | 012491  |
| 3          | .069240  | 409001  | 422729  | .045342 | .211947  | .026849 |
| •          | .106377  | 081736  | 141877  | .380239 | .425188  | .041434 |
| 5          | .010197  | 147240  | 175653  | .439287 | . 367495 | .002514 |
| 6          | 057579   | 264618  | 349825  | .203638 | .115348  | .038262 |
| 7          | 053875   | 165509  | 331626  | 125344  | 162347   | .106577 |
| 8          | 009940   | 023931  | 139483  | 109434  | 139365   | .079783 |
| 9-11       | .007282  | .002120 | 054256  | 025774  | 043759   | .071186 |
| 12-14      | .003016  | .045179 | 040115  | 050898  | .013462  | .034236 |
| 15-21      | 005034   | 096778  | 052650  | 080587  | 065024   | .037462 |
| 22-30      | .002173  | 097254  | 056273  | 039964  | 030013   | .038423 |
|            |          |         |         |         |          |         |

#### RUN NC. 82E 16M 11-02-62 0916-1025 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

### NORMALIZED QUADRATURE COVARIANCE

| M  | U,N     | U,RHO(W) | V.N     | V,RHO(W) | W, N    | W, RHO(W) | T,N     | T.RHO(W) | N.RHO(W) |
|----|---------|----------|---------|----------|---------|-----------|---------|----------|----------|
|    | 0.32199 | 0.71302  | 0.31807 | 0.70434  | 0.17161 | 0.38001   | 0.12772 | 0.28282  | 0.73299  |
|    | 10E 00  | 10E-01   | 10E 00  | 10E-01   | 10E 00  | 10E-01    | 10E 00  | 10E-01   | 10E-01   |
|    | •••     |          | •••     |          | •••     |           |         |          |          |
| 1  | 039267  | 068651   | 030944  | 027389   | .023359 | .049930   | 091148  | 066492   | .029362  |
| 2  | .013069 | 025385   | .036479 | .045014  | 076873  | 045155    | 131021  | 095601   | .042199  |
| 3  | 007246  | 045876   | .048719 | .056848  | 085944  | 053938    | 135910  | 099241   | .043806  |
| 4  | .009397 | 026904   | .037343 | .047251  | 130669  | 101321    | 127162  | 092852   | .040929  |
| 5  | .015461 | 012238   | .043365 | .053103  | 103500  | 083218    | 097431  | 071881   | .030781  |
| 6  | .008547 | 007431   | .056967 | .066145  | 071181  | 059184    | 063097  | 046612   | .020112  |
| 7  | .023687 | .011603  | 012722  | 010453   | 039030  | 024371    | 042005  | 031064   | .013631  |
| 8  | .018446 | 001227   | 080374  | 082055   | 080271  | 059715    | 055776  | 041144   | .018157  |
| 9  |         |          |         | 130102   |         |           |         |          | .018873  |
| 10 | .020858 | .000666  | 114504  | 119351   | 077771  | 059002    | 051419  | 037116   | .017201  |
| 11 | 044225  | 063186   | 076879  | 083370   | 035777  | 020669    | 049441  | 036369   | .015683  |
| 12 | 021994  | 034059   | 006656  | 018702   | 027422  | 018709    | 028347  | 021023   | .008736  |
| 13 | 019672  | 020955   | .022502 | .005866  | .003452 | .001176   | .002559 | .001724  | ~.000999 |
| 14 | 035225  | 026664   | .036497 | .020411  | .015183 | .001300   | .033742 | .024846  | 010598   |
| 15 | .004047 | .025899  | •050022 | .041037  | .004433 | 019769    | .061005 | .045166  | 019077   |
| 16 | .003802 | .032594  | .075135 | .072916  | .085503 | .060738   | .067693 | .050101  | 021020   |
| 17 | 014705  | .011049  | .059379 | .063205  | .080225 | .064763   | .041916 | .030926  | 013050   |
| 18 | .018639 |          | 028394  |          | .050330 |           | 001027  |          | .000510  |
| 19 | .047484 |          | 042000  |          | .009069 |           |         | 031322   |          |
| 50 | .055620 | .051961  | 041610  | 034966   | 038250  | 018345    | 062855  | 046131   | .019885  |
| 21 | .094117 | .085419  | .009130 | .020323  | 075039  | 048131    | 083386  | 061222   | .026212  |
| 22 | .068549 | .057180  | .054581 |          |         |           | (.36180 |          | .027318  |
| 23 | .051069 | .046953  | .067841 |          |         |           | 069696  |          | .021856  |
| 24 | .017095 | .019600  | .073744 |          |         |           | 039886  |          | .012338  |
| 25 | 029383  | 025409   | .036100 | .040482  | .017626 | .010194   | 010975  | 008296   | .002999  |
| 26 | 060489  |          | .029346 | .028737  | .054775 | .040672   | .024556 |          | 007604   |
| 27 | 094465  |          | .041895 | .032903  | .085417 | .070688   | .045171 |          | 014189   |
| 28 | 072470  |          | .082051 | .068973  | .029197 | .013364   | .048208 |          | 015280   |
| 29 | 063761  |          | .060003 | .040038  | .037022 | .024783   | .041073 |          | 013336   |
| 30 | 043015  | 035463   | 015333  | 037919   | 008339  | 017996    | .036462 | .026703  | 011551   |

### QUADRATURE SPECTRUM

| K           | U. N    | U.RHO(W) | V.N     | V.RHO(W) | W. N    | W,RHO(W) | T + N  | T.RHO(W) | N+RHD(W) |
|-------------|---------|----------|---------|----------|---------|----------|--------|----------|----------|
|             |         |          |         |          |         |          |        |          |          |
|             | 10E-02  | 10E-03   | 10E-01  | 10E-02   | 10E-02  | 10E-02   | 10E-02 | 10E-03   | 10E-03   |
| 1           | .159048 | 301550   | 026803  | 068566   | 604686  | 097931   | 482681 | 782511   | .896424  |
| 2           | 030326  | 941707   | 033245  | 072884   | 623016  | 103312   | 436598 | 709179   | .807839  |
| 2           | .221692 | 416016   | .008871 | .052129  | 632281  | 097738   | 543999 | 883750   | .998863  |
| 4           | .219453 | .092128  | .073003 | .196108  | 242855  | 031673   | 346900 | 562018   | .638566  |
| 5           | 256441  | 740862   | .102898 | .234038  | .009973 | .002451  | 128314 | 205629   | .237651  |
| 6           | 199735  | 956988   | .036781 | .080401  | 198617  | 025000   | 283138 | 456997   | .516969  |
| 7           | 098033  | 761278   | 054401  | 117770   | 143522  | 003643   | 306846 | 494971   | .566642  |
| 6<br>7<br>8 | 051866  | 347845   | 049653  | 105045   | .041148 | .021498  | 126868 | 201289   | .245122  |
| 9-11        | 038972  | 167410   | 007089  | 019029   | .123012 | .032897  | 038494 | 062249   | .072955  |
| 12-14       | 077090  | 198270   | 002306  | 001292   | .098158 | .022214  | 012763 | 020610   | .022659  |
| 15-21       | 077225  | 221423   | 018683  | 042498   | .058734 | .016276  | 018285 | 029236   | .034087  |
| 22-30       | 157721  | 358521   | 006735  | 016321   | .105892 | .024000  | 001505 | 003345   | .001031  |

RUN NO. 82E 16M 11-02-62 0916-1025 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

### NORMALIZED AUTOCOVARIANCE

| H        | U                 | ٧                 | W                 | T                 | N                 | RHO(W)            |
|----------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
|          | 0.31322<br>10E 00 | 0.30564<br>10E 00 | 0.88767<br>10E-01 | 0.49280<br>10E-01 | 0.33100<br>10E 00 | 0.16231<br>10E-01 |
| 0        | 1.000000          | 1.000000          | 1.000000          | 1.000000          | 1.000000          | 1.000000          |
| i        | .580315           | .629442           | .319639           | .552974           | .558097           | .529950           |
| 2        | . 282494          | . 368365          | .059201           | .233070           | .232324           | .196025           |
| 3        | .119476           |                   |                   | .043034           | .056278           | .023637           |
| 4        |                   | .162472           | 040921<br>099882  |                   | 046733            |                   |
|          | 066506            | 044220            | 099882            | 076418            | 046733            | 073591            |
| 5        | 180951            | 158950            | 132916            | 093753            | 088743            | 096997            |
| 6        | 188013            | 215277            | 099936            | 078709            | 067756            | 070771            |
| 7        | 172512            | 242516            | 083305            | 113538            | 107855            | 113686            |
| 8        | 114832            | 230245            | 039574            | 179441            | 150589            | 170730            |
| 9        | 158501            | 209248            | 104863            | 200084            | 143471            | 172862            |
| 10       | 193407            | 156926            | 019539            | 126249            | 118112            | 124999            |
| 11       | 177020            | 138282            | 018662            | 106649            | 118305            | 110632            |
| 12       | 179305            | 147571            | 047405            | 102557            | 126747            | 107686            |
| 13       | 184358            | 162083            | 022109            | 107755            | 139393            | 115062            |
| 14       | 132445            | 120644            | 148390            | 163262            | 182235            | 164826            |
|          |                   |                   |                   |                   |                   |                   |
| 15       | 080735            | 094360            | 126365            | 075412            | 087505            | 066794            |
| 16       | .027962           | 062929            | .007644           | .044864           | .042370           | .065751           |
| 17       | .050287           | .019677           | .028284           | .093479           | .080163           | .102648           |
| 18       | .107718           | .022179           | .038608           | .112532           | .073295           | .095763           |
| 19       | .044642           | .023029           | 040914            | .051717           | .023237           | .032974           |
| 20       | .073852           | .101809           | .019381           | .060590           | .039526           | .048613           |
| 21       | .158538           | .102540           | .017568           | .000340           | .033392           | .028711           |
| 22       | .084623           | .104096           | 010875            | 013679            | .051340           | .041762           |
| 23       | 053789            | . 089694          | 019659            | 099539            | 048406            | 058925            |
| 24       | 053751            | .030062           | 000053            | 105172            | 081477            | 082354            |
| 25       | 122988            | .038088           | 015210            | 068263            | 062001            | 054040            |
| 26       | 134252            | 009101            | .022633           | .012145           | 000120            | .021796           |
| 27       | 084331            | 041110            | .035597           | 026621            | -,017691          | 006561            |
| 28       | 037193            | 049439            | 021569            | 035654            | 049808            | 037210            |
| 29       | .056115           | 055092            | .031211           | 011213            | 045430            | 029031            |
| 30       | .104297           | 045738            | 058977            | 006318            | 063228            | 046710            |
|          |                   |                   |                   |                   |                   |                   |
| POWER SP | ECTRUM            |                   |                   |                   |                   |                   |
| K        | U                 | ٧                 | W                 | Ť                 | N                 | RHO(W)            |
|          | 10E-01            | 10E-01            | 10E-02            | 10E-02            | 10E-01            | 108-02            |
| 0        | .021716           | .024971           | .042080           | .057689           | .046835           | .017580           |
| ì        | .219689           | .239367           | .394800           | .384178           | .288567           | .114246           |
| Ž        | .340633           | .378147           | .520932           | .476725           | .341259           | .148957           |
| 3        | .469588           | .496617           | .641572           | .640158           | .424115           | . 202694          |
| 4        | .360144           | .398179           | .605867           | .533848           | .328146           | .165816           |
|          | 4                 |                   |                   |                   |                   |                   |
| 5        | . 242999          | .310995           | .609778           | .344650           | .222517           | .109041           |
| 6        | . 262044          | . 263641          | .673483           | .354153           | .240732           | .113401           |
| 7        | . 238209          | .181619           | .600394           | . 336561          | .234697           | .112621           |
| 8        | .174030           | .114034           | .420798           | . 227306          | .165190           | .081642           |
| 9-11     | .084408           | .076099           | .419349           | - 246966          | .149382           | .081699           |
| 12-14    | .055852           | .048899           | .268341           | .097339           | .075977           | .038203           |
| 15-21    | .067415           | .048549           | .285523           | .093913           | .066236           | .034474           |
| 22-30    | .047588           | .044619           | .297595           | .084144           | .051147           | .027610           |
|          |                   |                   |                   |                   |                   |                   |

### RUN NO. 82E 40M 11-02-62 0916-1025 EST

### GROSS STATISTICS

| 2 CI            | WIND SP                      | EED 5.57 M/SEC               | WIND DIRE                    | CTION 18 DEG                 |
|-----------------|------------------------------|------------------------------|------------------------------|------------------------------|
| UNSTABLE        | SIGMA A                      |                              | SOLAR RAI                    |                              |
| WATER/LAND      | SIGMA E                      |                              | NET RADIA                    |                              |
|                 |                              |                              |                              |                              |
|                 |                              |                              |                              |                              |
|                 | WITH NO                      | WITH 301 POINT               | WITH 61 POINT                | 301 PT RUN MEAN              |
|                 | RUNNING MEAN                 | RUNNING MEAN                 | RUNNING MEAN                 | 10 PT BLOCK AVE              |
| VARIANCES       |                              |                              |                              |                              |
|                 |                              |                              |                              |                              |
| U               | 0.11529E 01                  | 0.71183E 00                  | 0.40566E-00                  | 0.51924E 00                  |
| ٧               | 0.50693E 00                  | 0.33901E-00                  | 0.22432E-00                  | 0.21871E-00                  |
| 4 H             | 0.40676E-00                  | 0.36369E-00                  | 0.27879E-00                  | 0.21361E-00                  |
| 3.885 N         | 0.15326E-00<br>0.42429E-00   | 0.39682E-01<br>0.20137E-00   | 0.23759E-01<br>0.10853E-00   | 0.29985E-01<br>0.15226E-00   |
| RHO(W)          | 0.22004E-01                  | 0.10214E-01                  | 0.58149E-02                  | 0.77026E-02                  |
| E               | 0 103335 01                  | 0 707315 00                  | 0 454305-00                  |                              |
| <b>C</b> .      | 0.10333E 01                  | 0.70731E 00                  | 0.45439E-00                  |                              |
| CUCTINECE DATI  | ne                           |                              |                              |                              |
| GUSTINESS RATIO |                              |                              |                              |                              |
| U               | 0.19277                      | 0.15147                      | 0.11435                      | 0.12937                      |
| v               | 0.12783                      | 0.10453                      | 0.08503                      | 0.08396                      |
| N:              | 0.11450                      | 0.10827                      | 0.09479                      | 0.08298                      |
|                 |                              |                              |                              |                              |
| COVARIANCES     |                              |                              |                              |                              |
|                 |                              |                              |                              |                              |
| U,V             | -0.39471E-01                 | -0.44702E-02                 | -0.12485E-01                 | 0.28566E-02                  |
| U.W             | -0.24753E-00                 | -0.20454E-00                 | -0.11590E-00                 | -0.17031E-00                 |
| U,T<br>V.W      | -0.30739E-00<br>-0.48209E-01 | -0.95264E-01<br>-0.39745E-01 | -0.49753E-01<br>-0.17857E-01 | -0.80364E-01<br>-0.30525E-01 |
| v,Ť             | 0.26229E-01                  | 0.17967E-02                  | 0.60047E-02                  | -0.25794E-02                 |
| h y T           | 0.88095E-01                  | 0.72439E-01                  | 0.45170E-01                  | 0.53202E-01                  |
| U.N             | -0.21972E-00                 | -0.11156E-00                 | -0.50684E-01                 | -0.97170E-01                 |
| U,RHO(W)        | -0.91315E-01                 | -0.35341E-01                 | -0.17230E-01                 | -0.30308E-01                 |
| V . N           | 0.78184E-02                  | -0.31540E-01                 | -0.21360E-01                 | -0.24671E-01                 |
| V,RHO(W)        | 0.60102E-02                  | -0.48013E-02                 | -0.23703E-02                 | -0.44946E-02                 |
| W, N            | 0.19525E-00                  | 0.13680E-00                  | 0.87226E-01                  | 0.97043E-01                  |
| W,RHO(W)        | 0.47636E-01                  | 0.35329E-01                  | 0.22339E-01<br>0.37019E-01   | 0.25393E-01<br>0.46082E-01   |
| T,N<br>T,RHO(W) | 0.98946E-01<br>0.43814E-01   | 0.61404E-01<br>0.17152E-01   | 0.37019E-01                  | 0.12909E-01                  |
| N,RHO(W)        | 0.86734E-01                  | 0.43796E-01                  | 0.24318E-01                  | 0.33063E-01                  |
|                 | 0.144435-00                  | 0 141005-00                  | 0 (01275-01                  |                              |
| WE              | 0-16442E-00                  | 0.16190E-00                  | 0.60137E-01                  |                              |
| NORMALIZED COV  | ARIANCES                     |                              |                              |                              |
|                 |                              |                              |                              |                              |
| U • V           | -0.05163                     | -0.00910                     | -0.04139                     | 0.00848                      |
| U.W             | -0.36146                     | -0.40201                     | -0.34465                     | -0.51138                     |
| U.T             | -0.73128                     | -0.56682                     | -0.50679                     | -0.64406                     |
| V,W             | -0.10616                     | -0.11319                     | -0.07140                     | -0.14123                     |
| V,T             | 0.09410                      | 0.01549                      | 0.08225                      | -0.03185                     |
| W , T           | 0.35283                      | 0.60299                      | 0.55501                      | 0.66477                      |
| U+N             | -0.31415                     | -0.29466                     | -0.24156                     | -0.34559                     |
| U,RHO(W)        | -0.57331                     | -0.41447                     | -0.35476                     | -0.47924                     |
| V,N             | 0.01686                      | -0.12071                     | -0.13690                     | -0.13520                     |
| V,RHO(W)        | 0.05691                      | -0.08159                     | -0.06563                     | -0.10951                     |
| W.N.            | 0.47000                      | 0.50548                      | 0.50146                      | 0.53810                      |
| W,RHO(W)        | 0.50351                      | 0.57966                      | 0.55483                      | 0.62601                      |
| T,N             | 0.38802                      | 0.68691                      | 0.72903                      | 0.68201                      |
| T,RHO(W)        | 0.75447<br>0.89763           | 0.85198<br>0.96568           | 0.87725<br>0.96802           | 0.84942<br>0.96546           |
| N,RHO(W)        | 0.07103                      | 0.70200                      | 0.70002                      | V. 70770                     |
|                 |                              |                              |                              |                              |

RUN NO. 82E 46M 11-02-62 0916-1025 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| NURMALIZED | COSPECTRUM        | CUVARIANCE        |                   |          |                   |                   |  |
|------------|-------------------|-------------------|-------------------|----------|-------------------|-------------------|--|
| М          | U,V               | U.W               | U, T              | V, W     | V, T              | N <sub>T</sub> T  |  |
|            | 0.30171           | 0 33433           | 0 (19303          | 0.25008  | 0.73030           | 0 91400           |  |
|            | 0.30171<br>10E 00 | 0.33633<br>10E 00 | 0.98203<br>10E-01 | 10E 00   | 0.73020<br>10E-01 | 0.81400<br>10E-01 |  |
| 0          | 041511            | 344407            | 506710            | 071548   | .082080           | .555086           |  |
| i          | 032353            | 337197            | 475793            | 070237   | .063749           | .510144           |  |
| 2          | 022483            | 306374            | 427825            | 062543   | .034442           | .427078           |  |
| 3          | 018115            | 269296            | 380149            | 048463   | .016891           | .343617           |  |
| 4          | 011945            | 233743            | 332243            | 030521   | .006260           | .267342           |  |
| 5          | 008934            | 197438            | 223964            | 016309   | 008186            | . 202289          |  |
| 6          | 011447            | 163388            | -,234732          | 005868   | 022713            | .150469           |  |
| 7          | 018824            | 133718            | 190076            | .006508  | 031678            | .107579           |  |
| 8          | 021457            | 109416            | 145293            | .019884  | 031684            | .073002           |  |
| 9          | 020042            | 079179            | 097474            | .031019  | 028321            | .045274           |  |
| 10         | 022365            | 045515            | 049631            | .045536  | 017992            | .021172           |  |
| 11         | 031535            | 011307            | 006758            | .055159  | 000639            | 009736            |  |
| 12         | 038271            | .024876           | .031648           | .058168  | .016732           | 046982            |  |
| 13         | 037559            | .055784           | .068691           | . 056686 | .025216           | 083738            |  |
| 14         | 038712            | .086622           | .105740           | .048762  | .026132           | 114594            |  |
| 15         | 038150            | .107693           | .135173           | .041545  | .025113           | 142260            |  |
| 16         | 039389            | .123128           | .157328           | .035929  | .027665           | 162880            |  |
| 17         | 038655            | .135932           | .174932           | .029461  | .029242           | 177724            |  |
| 18         | 036609            | .142025           | .189813           | .020849  | .030702           | 184378            |  |
| 19         | 038650            | .145804           | .197855           | .016561  | .032124           | 182993            |  |
| 20         | 031911            | .150893           | .201823           | .015498  | .034268           | 173833            |  |
| 21         | 016650            | .151054           | .210156           | .014079  | .036527           | 159227            |  |
| 22         | 003611            | .148897           | .215899           | .011936  | .034241           | 148089            |  |
| 23         | .005040           | .146713           | .216273           | .010745  | .033053           | 144420            |  |
| 24         | .012884           | .138219           | .208375           | .009521  | .028848           | 143006            |  |
| 25         | .016506           | .125905           | -193173           | .006294  | .022334           | 146605            |  |
| 26         | .020510           | .107132           | .176276           | 003963   | .015424           | 148153            |  |
| 27         | .021257           | .089262           | .157013           | 007881   | .011222           | 142551            |  |
| 28         | .026046           | .076428           | .136239           | 005709   | .011479           | 127861            |  |
| 29         | .036031           | .064155           | -119936           | 00613B   | .012505           | 108764            |  |
| 30         | .046552           | .054967           | .104933           | 010003   | .010921           | 089342            |  |
| 31         | .051784           | .045958           | .088568           | 014861   | .007220           | 072891            |  |
| 32         | .052647           | .032862           | .069411           | 019090   | 004268            | 052363            |  |
| 33         | .052617           | .016972           | .046349           | 021635   | 016971            | 031326            |  |
| 34         | .051034           | .003180           | .030202           | 023294   | 027778            | 018218            |  |
| 35         | .052100           | 001889            | .019875           | -,024746 | 042397            | 008238            |  |
| 36         | .045623           | 003951            | .006948           | 025340   | 057956            | 003796            |  |
| 37         | .045821           | 003589            | 001011            | 025741   | 070536            | 003162            |  |
| 38         | .047077           | 007090            | 005089            | 025054   | 082252            | 000672            |  |
| 39         | .044421           | 009444            | 007506            | 026227   | 086976            | .000354           |  |
| 40         | .043682           | 008809            | 009642            | 028317   | 088571            | 002506            |  |
| 41         | .040011           | 004848            | 013094            | 028580   | 083643            | 007906            |  |
| 42         | .035037           | .004133           | 011084            | 028649   | 074742            | 009169            |  |
| 43         | .031035           | .007234           | 006303            | 021513   | 060165            | 004010            |  |
| 44         | .026578           | .007452           | 004941            | 016610   | 046100            | .001985           |  |
| 45         | .018680           | .008274           | 006073            | 017691   | 039611            | .005285           |  |
| 46         | .010492           | .001183           | 007577            | 018639   | 035350            | .007486           |  |
| 47         | .009004           | 004177            | 005998            | 021670   | 029507            | .008124           |  |
| 48         | .011775           | 006588            | 003541            | 025210   | 022559            | .011273           |  |
| 49         | .012183           | 014454            | .000804           | 022248   | 018639            | .017290           |  |
| 50         | .009698           | 020971            | .004248           | 019432   | 020382            | .025373           |  |
| 51         | .001115           | 021189            | .005199           | 016205   | 019861            | .027937           |  |
|            | 005241            | 011684            | -010035           | 013782   | 018892            | .028810           |  |
|            | 007394            | 000840            | -015513           | 013557   | 018666            | -029907           |  |
| 54         | 009277            | .008503           | .016558           | 017124   | 015226            | .028619           |  |
|            | 011706            | .012266           | .012556           | 019647   | 011090            | .027608           |  |
|            | 014645            | .015113           | -013944           | 019357   | 009463            | .026466           |  |
|            | 010466            | .017904           | .016591           | 012494   | 009021            | -026379           |  |
| 58<br>59   | .000240           | .024235           | •020157           | 005159   | 008583            | -024827           |  |
| J 7        | .011766           | .028992           | .016728           | 009425   | 009141            | .023003           |  |
| 60         | .017615           | .032242           | .019728           | 014740   | 011230            | .023342           |  |

RUN NO. 82E 40M 11-02-62 0916-1025 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| N        | U, N    | -U, RHO (W) | V,N              | V,RHO(W) | W, N               | W, RHO(W)        | T • N    | T,RHO(W) | N,RHO(W)           |
|----------|---------|-------------|------------------|----------|--------------------|------------------|----------|----------|--------------------|
|          |         | 0 40570     |                  | 0 2/121  |                    |                  |          |          |                    |
|          | 0.20983 | 0.48579     | 0.15602          | 0.36121  | 0.17393<br>10E 00  | 0.40267          | 0.50784  | 0.11757  | 0.25122            |
|          | 10E 00  | 10E-01      | 10E 00           | 10E-01   | 105 00             | 10E-01           | 10E-01   | 108-01   | 10E-01             |
| 0        | 241355  | 354621      | 136994           | 065637   | .501514            | . 554905         | .729046  | .877279  | .967938            |
| 1        |         |             | 134119           |          | .458656            | .508389          | .664620  | .792367  | .860252            |
| 2        |         |             | 127040           |          | .375094            | .419440          | .551723  | .658130  | .684517            |
| 3        |         |             | 111250           |          | .288611            | .328068          | .438078  | .528817  | .526907            |
| 4        |         |             | 091536           |          | .206783            | . 242781         | .332474  | .410542  | .400245            |
|          |         |             |                  |          |                    |                  |          |          |                    |
| 5        | 133445  | 197259      | 076614           | 056914   | .138691            | .171326          | .239908  | .306248  | .298988            |
| 6        |         |             | 067718           |          | .090501            | .118526          | .166004  | .220807  | .216812            |
| 7        |         |             | 058088           |          | .056403            | .078841          | .112359  | .156296  | .145530            |
| 8        |         |             | 042987           |          | .027088            | .045502          | .069983  | .102700  | .083471            |
| 9        | 042095  | 065155      | 022323           | 026090   | 000745             | .015990          | .028604  | .051827  | .028520            |
| 10       | 008382  | 024095      | 001611           | 007707   | - 030504           | - 013558         | - 016302 | 002220   | - 010450           |
| ii       | .020451 | .011745     | .017514          |          |                    | 045470           |          |          |                    |
| 12       | .045359 | .043278     | .032204          |          |                    | 081534           |          |          |                    |
| 13       | .068084 | .072547     | .042222          |          |                    | 113425           |          |          |                    |
| 14       | .088200 | .100255     | .047352          |          |                    | 135730           |          |          |                    |
|          |         |             |                  |          |                    |                  |          |          |                    |
| 15       | .100352 | .119623     | .049702          |          |                    | 154505           |          |          |                    |
| 16       | .106955 | -132417     | .051020          |          |                    | 167761           |          |          |                    |
| 17       | .115398 | .144611     | .049814          |          |                    | 176702           |          |          |                    |
| 18       | .128526 | .159278     | .050637          |          |                    | 180940           |          |          |                    |
| 19       | .134593 | .166507     | .056557          | .051778  | 159373             | 178845           | 231928   | 270075   | 278273             |
| 20       | .130688 | .165295     | .067011          | 050404   | - 140531           | _ 149434         | _ 220082 | - 270240 | - 200324           |
| 21       | .123270 | .163091     | .073897          |          |                    | 168634<br>152290 |          |          |                    |
| 22       | .114621 | .159282     | .076603          |          |                    | 137012           |          |          |                    |
| 23       | .104928 | .152627     | .074479          |          |                    | 129363           |          |          |                    |
| 24       | .094602 | .142552     | .068686          |          |                    | 126922           |          |          |                    |
|          |         |             |                  |          |                    |                  |          |          |                    |
| 25       | -081825 | -128091     | -062624          | .051726  | 108259             | 129435           | 198293   | 245519   | 241503             |
| 26       | .067430 | -111733     | .054499          | .043633  | 108378             | 130235           | 191747   | 239144   | 233855             |
| 27       | .047732 | .090889     | .049542          |          |                    | 124800           |          |          |                    |
| 28       | .028649 | .069903     | .049984          |          |                    | 109695           |          |          |                    |
| 29       | .011190 | .051802     | .048404          | .038598  | 069038             | 088266           | 133816   | 174176   | 176351             |
| 30       | .001031 | .039389     | .044512          | 025222   | - 047244           | 065806           | - 102522 | - 120224 | - 127611           |
| 31       | 002964  | .030743     | .038085          |          |                    | 047024           |          |          |                    |
| 32       | 007742  | .020394     | .026394          |          |                    | 025324           |          |          |                    |
| 33       | 017403  | .005052     | .014909          | .004119  |                    | 004670           |          |          |                    |
| 34       | 023927  |             |                  | 007877   |                    | .008258          |          |          |                    |
|          |         |             |                  |          |                    |                  |          |          |                    |
| 35       |         |             | 013018           |          | .028034            |                  | 004823   |          | .000253            |
| 36       |         |             | 030730           |          | .032715            |                  | 005444   |          | .002291            |
| 37       |         |             | 043255           |          | .033613            |                  | 009583   |          | -003197            |
| 38<br>39 |         |             | 051950<br>054622 |          | .031917            |                  | 013733   |          | .002995            |
| ,,       | 011217  | 014323      | 034022           | 010233   | .021030            | .019113          | 017140   | 034413   | 001190             |
| 40       | 018017  | 015630      | 057527           | 072940   | .024374            | .016302          | 019853   | 038849   | 000375             |
| 41       |         |             | 057560           |          | .023342            |                  | 013705   |          | .007470            |
| 42       |         |             | 054934           |          | .024418            |                  | 006567   |          | .015736            |
| 43       | 000524  | 002749      | 045859           | 054510   | .023784            | .015291          | 003106   | 013392   | .017616            |
| 44       | .005933 | .002344     | 036479           | 042796   | .019765            | .014698          | 001301   | 007445   | .015639            |
|          |         |             |                  |          |                    |                  |          |          |                    |
| 45       | .008479 |             | 031418           |          | .015791            | .013039          |          | 003160   | .013022            |
| 46<br>47 | .008645 |             | 026265           |          | .012866            | .011798          | .006853  | .004317  | .015781            |
| 48       | .011646 |             | 019837           |          | .014761            | .019532          | .027457  | .014743  | .025273<br>.037204 |
| 49       | .021036 |             | 016284           |          | .026796            | .025187          | .037263  | .040723  | .044126            |
| • •      |         |             |                  |          |                    |                  |          |          |                    |
| 50       | .025272 | .019070     | 014014           | 017597   | .025696            | .027492          | .043151  | .046730  | .049814            |
| 51       | .026265 |             | 010328           |          | .020072            | .024557          | .047333  | .051228  | .055285            |
| 52       | .026324 |             | 009580           |          | .016385            | .022290          | .050937  | .054784  | .057887            |
| 53       | .027391 |             | 007767           |          | .018011            | .023676          | .049156  | .052409  | .052027            |
| 54       | .030857 | .027456     | 003956           | 008254   | .017612            | .022833          | .043382  | .047879  | .040870            |
| 6.6      | 034150  | 220244      | - 000354         | - 004343 | 012807             | 010220           | 034433   | 044440   | 02770/             |
| 55<br>56 | .034158 | .030179     | 000354           | 002280   | .012807<br>.008007 | .019220          | .036422  | .044449  | .027784            |
| 57       | .031442 | .027917     |                  | .000240  | .010129            | .016741          | .034988  | .044647  | .022417            |
| 58       | .025022 | .024768     |                  | 000273   | .013825            | .018721          | .046976  | .055642  | .039863            |
| 59       | .014189 | .015865     |                  | 002769   | .017156            | .020360          | .065078  | .073423  | .062470            |
|          |         |             | _                |          |                    |                  |          |          |                    |
| 60       | .006633 | .011605     | 002249           | 005349   | .020062            | .022579          | .079892  | .087917  | .082255            |
|          |         |             |                  | 50u      |                    |                  |          |          |                    |

RUN NO. 82E 40M 11-02-62 0916-1025 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| NUKMALI  | ZED QUADRATURE                          | COANTANCE          |   |                    |                    |                    |
|----------|---|--------------------|---|--------------------|--------------------|--------------------|
| M        | U, V                                    | U.W                | U, T                                    | V. W               | V.T                | W, T               |
|          | •••                                     | •••                | • | • •                |                    |                    |
|          | 0.30171                                 | 0.33633            | 0.98203                                 | 0.25008            | 0.73020            | 0.81400            |
|          | 10E 00                                  | 10E 00             | 10E-01                                  | 10E 00             | 10E-01             | 10E-01             |
| _        |   | 010010             | 022244                                  | 015885             | 014414             | 003301             |
| 1        | .001604                                 | 018069             | 023344                                  | 023038             | 014614<br>019629   | .006784            |
| 2        | .006246                                 | 028529<br>036279   | 043336<br>063710                        | 021576             | 015590             | .011593            |
| 3<br>4   | .010317<br>.011373                      | 042336             | 075434                                  | 017940             | 010274             | .008659            |
| 5        | .009345                                 | 047702             | 082431                                  | 012912             | 003789             | .008983            |
| -        | *************************************** | •••••              | *************************************** |                    |                    |                    |
| 6        | .009094                                 | 049907             | 085766                                  | 013516             | .000765            | .015124            |
| 7        | .009480                                 | 045244             | 083502                                  | 011285             | .008181            | .020479            |
| 8        | •007590                                 | 040591             | 081068                                  | 010020             | .017753            | .022400            |
| 9        | .011949                                 | 032328             | 078340                                  | 009864             | .025472            | .025232            |
| 10       | .014293                                 | 027893             | 074806                                  | 004969             | .030013            | .025277            |
| 11       | .014712                                 | 024359             | 073836                                  | 002026             | .033117            | .021943            |
| 11<br>12 | .013715                                 | 020040             | 068775                                  | 003577             | .037619            | .016636            |
| 13       | .014071                                 | 026218             | 061401                                  | 003906             | .040137            | .010176            |
| 14       | .016343                                 | 030205             | 052919                                  | 001247             | .042644            | .004374            |
| 15       | .013199                                 | 029519             | 046269                                  | .002769            | .045061            | .001679            |
|          |   |                    |   |                    |                    |                    |
| 16       | .000372                                 | 023147             | 039347                                  | .010529            | .043667            | 000243             |
| 17       | 007743                                  | 014407             | 030297                                  | .019596            | .041007            | 001526             |
| 18       | 013337                                  | 007894             | 022632                                  | .022803            | .035103            | 003399             |
| 19       | 024032                                  | .000069            | 012876                                  | .020723            | .027684<br>.021269 | 005348<br>004648   |
| 20       | 029047                                  | .003165            | 002601                                  | .018106            | •021209            | 004040             |
| 21       | 029658                                  | .006071            | .008176                                 | .018431            | .010938            | .001305            |
| 22       | 024813                                  | .009967            | .018250                                 | .020561            | 001109             | .006448            |
| 23       | 019212                                  | .012781            | .022458                                 | .022287            | 011383             | .009361            |
| 24       | 013436                                  | .011077            | .022075                                 | .025175            | 020092             | .013717            |
| 25       | 006935                                  | .010654            | .020734                                 | .016617            | 029534             | .017696            |
|          |   |                    |   |                    |                    |                    |
| 26       | 009708                                  | .017118            | .025093                                 | .001702            | 038872             | .020230            |
| 27       | 017082                                  | .023951            | .030575                                 | 00337B             | 041530             | .023039            |
| 28       | 024078                                  | .026235            | .034535                                 | 006436<br>010974   | 040861<br>041887   | .025393<br>.027607 |
| 29<br>30 | 035257<br>043679                        | .026496<br>.025347 | .031281<br>.025652                      | 017620             | 044396             | .028260            |
| 50       | 043677                                  | *023341            | .023032                                 | 01/020             | .044370            | 1020200            |
| 31       | 046976                                  | .024320            | .018896                                 | 023114             | 047894             | .027751            |
| 32       | 048630                                  | .021036            | .017138                                 | 024018             | 049968             | .028304            |
| 33       | 054567                                  | .014706            | .014359                                 | 016765             | 049151             | .027652            |
| 34       | 056165                                  | .002616            | .007740                                 | 012107             | 043996             | .023651            |
| 35       | 051335                                  | 008056             | .002503                                 | 015215             | 039712             | .020068            |
| •        | 04.370                                  | 013047             | 003005                                  | - 021117           | 033417             | .018924            |
| 36<br>37 | 0427°5<br>026290                        | 013047<br>013073   | 003805<br>010028                        | 021117<br>023901   | 025125             | .019606            |
| 38       | 005811                                  | 008940             | 013689                                  | 023365             | 014092             | .018380            |
| 39       | .011391                                 | 012507             | 014548                                  | 023352             | 006018             | .017523            |
| 40       | .027108                                 | 020542             | 011886                                  | 025272             | .000415            | .016097            |
|          |   |                    |   |                    |                    |                    |
| 41       | .042352                                 | 026514             | 013207                                  | 024525             | .006931            | .015418            |
| 42       | .055892                                 | 026434             | 015921                                  | 026130             | .010166            | .013453            |
| 43       | .064611                                 | 028173             | 016806                                  | 029807             | .011835            | .011232            |
| 44       | .073200                                 | 031768<br>029294   | 012531                                  | 027740             | .015626<br>.020594 | .009085            |
| 45       | .074051                                 | 027294             | 006961                                  | 016470             | .020394            | .004810            |
| 46       | .068209                                 | 021880             | 003913                                  | 006058             | .024764            | 001497             |
| 47       | .062498                                 | 007956             | 001566                                  | 000634             | .024252            | 007473             |
| 48       | .053341                                 | .007867            | 000674                                  | .003213            | .019836            | 017844             |
| 49       | .045910                                 | .024426            | .000665                                 | .006274            | .017537            | 027916             |
| 50       | .038056                                 | .037630            | .004240                                 | .003220            | .013852            | 035305             |
|          |   |                    |   |                    |                    |                    |
| 51       | .034239                                 | .037788            | .016870                                 | .004081            | .012933            | 040750             |
| 52       | • 027848                                | .033442<br>.030631 | .033577<br>.048394                      | .008229            | .012418            | 043510             |
| 53<br>54 | .016619<br>.006668                      | .029654            | .060947                                 | .012711<br>.011793 | .010212            | 043095<br>039549   |
| 55       | 004033                                  | .026035            | .065020                                 | .018015            | .012494            | 035230             |
|          | • 504055                                |                    | ,                                       |                    |                    |                    |
| 56       | 003919                                  | .017421            | .063751                                 | .024673            | .018592            | 032556             |
| 57       | .003481                                 | .011932            | .062170                                 | .027505            | .023124            | 033221             |
| 58       | .009415                                 | .008798            | .055693                                 | .033478            | .026941            | 033686             |
| 59       | .006392                                 | 003644             | .042210                                 | .039575            | .028915            | 034285             |
| 60       | .001502                                 | 017988             | .032219                                 | .039053            | .027289            | 035960             |
|          |   |                    |   |                    |                    |                    |

RUN NO. 82E 40M 11-02-62 0916-1025 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| М        | U, N               | U,RHO(W)           | V , N   | V,RHO(W)          | N, N              | W,RHD(W)          | T • N             | T.RHO(W)          | N,RHO(W)          |
|----------|--------------------|--------------------|---------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
|          |                    |                    |         |                   |                   |                   |                   |                   |                   |
|          | 0.20983<br>10E 00  | 0.48579<br>10E-01  | 10E 00  | 0.36121<br>10E-01 | 0.17393<br>10E 00 | 0.40267<br>10E-01 | 0.50784<br>10E-01 | 0.11757<br>10E-01 | 0.25122<br>10E-01 |
| 1        | 015422             | 019529             | 018472  | 018357            | .018534           | .011829           | .030587           | .021429           | 011019            |
| 2        |                    | 036622             |         |                   | .028170           | . 022544          | .032098           |                   | 011511            |
| 3        | 041263             | 052382             | 023933  | 022565            | .029281           | . 025155          | .027381           |                   | 009844            |
| 4        | 055682             | 066927             | 015522  | 014763            | .024930           | .021038           | .025015           | .017687           | 009104            |
| 5        | 071658             | 080836             | 007442  | 006866            | .024583           | .020958           | .022540           | .016061           | 008115            |
| 6        | 083274             | 090149             | .000111 | .000102           | .030088           | .027063           | .020666           | .014828           | 007205            |
| 7        | 090870             | 094543             | .010471 | .010168           | .034355           | .031988           | .021540           | .015448           | 007462            |
| 8        |                    | 098689             | .023777 | .023058           | .032851           | .031637           | .022773           | .016264           | 007918            |
| 9        |                    | 102166             | .032632 | .032194           | .028719           | .029587           | .023064           | .016446           | 008013            |
| 10       | 100924             | 098124             | .036504 | .036614           | .025182           | .026931           | .024612           | .017525           | 008606            |
| 11       | 095325             | 093857             | .040038 | .040031           | .023790           | .024876           | .027501           | .019557           | 009601            |
| 12       |                    | 089859             | .048525 | .047674           | .020362           | .020722           | .030844           | .022030           | 010818            |
| 13       | 088606             | 084732             | .060727 | .057037           | .012702           | .012896           | .030401           | .021685           | 010586            |
| 14       | 084213             | 078481             | .073224 | .066679           | .004678           | .004919           | .027197           | .019368           | 009487            |
| 15       | 076012             | 070302             | .079587 | .072013           | 001318            | 000276            | .026417           | .018760           | ~.009379          |
| 16       | 060824             | 057228             | .083224 | .074123           | 004640            | 003337            | .025890           | .018286           | 009361            |
| 17       | 044022             | 042025             | .084003 | .073809           | 004552            | 003678            | .024869           | .017500           | 009070            |
| 18       | 030643             | 029852             | .079300 | .068365           | 005672            | 005104            | .023443           | .016556           | 008438            |
| 19       | 019225             | 018095             | .071714 | .060246           | 004081            | 004495            | .020240           | .014444           | 007183            |
| 20       | 011971             | 009301             | .060494 | .049983           | .002446           | .000254           | .016451           | .011696           | 005846            |
| 21       | 004346             | .000136            | .046235 | .036232           | .014264           | .010593           | .011120           | .007814           | 004084            |
| 22       | .004810            | .010186            | .027518 | .018802           | .025860           | .020512           | .007598           |                   | 002971            |
| 23       | .013349            | .017742            | .013929 | .005556           | .037584           | . 029742          | .007221           |                   | 002912            |
| 24       | .015828            | .019209            | .008311 | 001461            | .045783           | .037186           | .006264           | .004361           | 002686            |
| 25       | .013877            | .017435            | .002702 | 008849            | .044790           | .037936           | .002942           | .002039           | 001443            |
| 26       | .018513            | .022210            | 006251  | 018557            | .037990           | . 034044          | 004001            | 002906            | .001127           |
| 27       | .028487            | .031195            | 014142  | 025064            | .030905           | .030118           | 015836            | 011284            | .005354           |
| 28       | .039408            | .040282            | 018504  | 027788            | .025413           | .026956           | 026894            | 019089            | .009394           |
| 29       | .044671            | .042746            | 022972  | 031137            | .019805           | .023865           | 034113            | 024017            | .012058           |
| 30       | .046655            | .041999            | 031083  | 037825            | .010552           | .017638           | 038074            | 026762            | .013513           |
| 31       | .045926            | .039092            | 035166  | 042173            | .002576           | .011821           | 040041            | 028211            | .014239           |
| 32       | .040981            | .034870            | 032901  | 041307            | 001428            | .009258           | 038331            | 026946            | .013720           |
| 33       | .034178            | .029041            | 029860  | 038777            | 003972            | .007331           | 033878            | 023725            | .012183           |
| 34       | .025351            | .020526            | 027560  | 035239            | 007286            | .003591           | 024440            | 017081            | .008768           |
| 35       | .021510            | .015826            | 031170  | 036161            | 009913            | .000293           | 017221            | 011964            | .006204           |
| 36       | .013050            | .007580            | 033329  | 035537            | 008191            | .001029           | 010523            | 007287            | .003857           |
| 37       |                    | 004491             |         |                   |                   |                   | 006407            |                   | .002420           |
| 38       |                    |                    |         |                   |                   | 001818            |                   |                   | .001465           |
| 39       |                    |                    |         |                   |                   | 005496            |                   |                   | .001606           |
| 40       | 026010             | 022702             | 000074  | 000295            | 017215            | 006224            | 007247            | 005189            | .002734           |
| 41       |                    |                    |         |                   |                   | 006485            |                   |                   | .003270           |
| 42       |                    |                    |         |                   |                   | 009484            |                   |                   | .002618           |
| 43       |                    | 032495             |         |                   |                   | 011935            |                   |                   |                   |
| 44       |                    | 029432             | .004372 |                   |                   | 013295            | .002893           |                   | 000736            |
| 45       | 032890             | 025497             | .014712 | .017545           | ~.022983          | 014250            | .008158           | .005763           | 002635            |
| 46       |                    | 021650             | .019447 |                   | 018655            |                   | .011380           |                   | 003908            |
| 47       |                    | 018635             | .014062 |                   | 013729            |                   | .015249           |                   | 005418            |
| 48       |                    | 017755             | .005485 |                   | 013398            |                   | .019758           |                   | 006947            |
| 49       |                    | 016533             | .002675 |                   |                   | 019936            | .021509           |                   | 007592            |
| 50       | 022199             | 013948             | .002444 | .006783           | 015057            | 023493            | .022938           | .016003           | 008149            |
| 51       |                    | 005390             | .001574 |                   | 013301            |                   | .023199           |                   | 008278            |
| 52       | 005350             | .008644            | .000619 |                   | 009165            |                   | .022470           |                   | 008070            |
| 53       | .010601            | .025239            | -001419 |                   | 005592            |                   | .019091           |                   | 006862            |
| 54<br>55 | .028813<br>.037477 | .042495<br>.050057 | .005588 | .007975           |                   | 015856<br>010963  | .013902           |                   | 005056<br>004552  |
|          |                    |                    |         |                   |                   |                   |                   |                   |                   |
| 56       | .038357            | .050234            | .028925 | .027601           |                   | 007539            | .010156           |                   | 003749            |
| 57       | .038422            | .049581            | .033471 | .032414           |                   | 009243            | .005862           |                   | 002344            |
| 58       | .036375            | .045801            | .035810 | .035327           |                   | 009486            | .001048           |                   | 000670            |
| 59       | .027355            | .034661            | -044114 | .041651           |                   | 009379            |                   |                   |                   |
| 60       | .020947            | .026554            | .049349 | .044558           | 1002919           | 011522            | 000516            | 000721            | 000133            |

RUN NO. 82E 40M 11-02-62 0916-1025 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

### NORMALIZED AUTOCOVARIANCE

| .,       | ter morocorani   |                    |                     |                    |                    |                    |
|----------|------------------|--------------------|---------------------|--------------------|--------------------|--------------------|
| M        | U                | ٧                  | W                   | T                  | N                  | RHD(W)             |
|          | •                | •                  |                     | ,                  |                    |                    |
|          | 0.40576          | 0.22434            | 0.27878             | 0.23767            | 0.10851            | 0.58160            |
|          | 10E 00           | 10E 00             | 10E 00              | 10E-01             | 10E 00             | 10E-02             |
|          |                  | _                  |                     |                    |                    |                    |
| 0        | 1.000000         | 1.000000           | 1.000000            | 1.000000           | 1.000000           | 1.000000           |
| 1        | .858830          | .836147            | .839435             | . 890693           | .879871            | .893375            |
| 2        | .701044          | .637150            | .618813             | .739986            | .688095            | .721080            |
| 3        | . 565530         | .477100            | .437730             | .605060            | .522840            | .563052            |
| 4        | .450105          | . 343635           | .300665             | .484812            | . 397431           | .430816            |
|          |                  |                    |                     |                    |                    |                    |
| 5        | . 355191         | .231747            | .197776             | .377503            | .301382            | . 321572           |
| 6        | .272737          | .132867            | .123899             | .285728            | .222818            | .232649            |
| 7        | . 205398         | .053750            | .069858             | .212304            | .149223            | .159020            |
| 8        | .140696          | 000910             | .025226             | .147161            | .082845            | .095864            |
| 9        | .075101          | 046102             | 009541              | .087103            | .026022            | .038780            |
|          |                  |                    |                     |                    |                    |                    |
| 10       | .013092          | 090597             | 037054              | .033287            | 020520             | 012960             |
| 11       | 045255           | 123354             | 068375              | 016588             | 064203             | 061840             |
| 12       | 095189           | 138263             | 105648              | 065241             | 110842             | 111373             |
| 13       | 143127           | 149689             | 143317              | 112537             | 155722             | 157056             |
| 14       | 181130           | 160797             | 177058              | 153608             | 187397             | 189754             |
|          |                  |                    |                     |                    | 0.172.07           |                    |
| 15       | 213312           | 164323             | 208410              | 190142             | 201885             | 209777             |
| 16       | 236669           | 159503             | 233046              | 219274             | 214278             | 226884             |
| 17       | 250078           | 154867             | 241697              | 247587             | 237322             | 253159             |
| 18       | 263366           | 161039             | 243825              | 274876             | 263982             | 280738             |
| 19       | 269967           | 163019             | 238633              | 293912             | 275980             | 293834             |
|          |                  |                    |                     |                    |                    |                    |
| 20       | 271849           | 160025             | 223194              | 299691             | 280349             | 295394             |
| 21       | 283081           | 158812             | 201510              | 302045             | 280115             | 293146             |
| 22       | 288472           | 161694             | 189179              | 298866             | 270451             | 283836             |
| 23       | 284112           | 164107             | 163984              | 296472             | 260771             | 276320             |
| 24       | 270812           | 160796             | 178425              | 294261             | 251172             | 268349             |
|          |                  |                    |                     |                    |                    |                    |
| 25       | 249381           | 154517             | 173579              | 290436             | 240793             | 259327             |
| 26       | 225679           | 149743             | 170328              | 285395             | 233295             | 251658             |
| 27       | 197646           | 140300             | 163414              | 274619             | 226056             | 241517             |
| 28       | 171441           | 128670             | 149868              | 250146             | 210167             | 220271             |
| 29       | 156049           | 114238             | 126855              | 218862             | 181491             | 187578             |
|          |                  |                    |                     | 9000               |                    |                    |
| 30       | 135144           | 096904             | 094592              | 183826             | 142258             | 147510             |
| 31       | 109047           | 076570             | 057409              | 150878             | 095801             | 104407             |
| 32       | 086326           | 067067             | 023699              | 117654             | 052554             | 063371             |
| 33       | 054212           | 053818             | 002051              | 092134             | 021963             | 033930             |
| 34       | 032076           | 040030             | .017226             | 077254             | 004213             | 017046             |
|          |                  |                    |                     |                    |                    |                    |
| 35       | 014651           | 034737             | .028671             | 070885             | .002768            | 010584             |
| 36       | .000027          | 034374             | .035959             | 070157             | .006230            | 009445             |
| 37       | .012347          | 038810             | .042731             | 074137             | .009534            | 010322             |
| 38       | .022889          | 040235             | .046030             | 073839             | .011290            | 011324             |
| 39       | .029506          | 034419             | .042523             | 071757             | .008274            | 015454             |
|          | 021000           | 000047             | 040040              | 017151             | 000011             | 01/550             |
| 40       | .031999          | ~.022067           | .042260             | 067454             | .009811            | 014558             |
| 41       | .038271          | 002498             | .040005             | 058459             | -017897            | 006301             |
| 42       | .038929          | .005600            | -036474             | 045203             | .026008            | .003105            |
| 43       | .034234          | .009178            | .034220             | 030247             | .026652            | .007449            |
| 44       | .029757          | .011650            | .032685             | 017597             | -022854            | .008271            |
| 46       | 020145           | 011147             | 020434              | - 010179           | 019141             | 009014             |
| 45       | .029165          | .011147            | .038436             | 010178             | .018141<br>.018943 | .008016            |
| 46       | .025068          | .009431            | .033251             | 001324             |                    | .012639            |
| 47       | .016614          | .012420            | .025987             | .010759            | .027849            | .023225            |
| 48       | .003752          | .016787            | .017621             | .026791            | .038453            | .036870            |
| 49       | 008379           | .009367            | .008335             | .039982            | .043166            | .045987            |
| 50       | - 020745         | 004333             | 004483              | .044947            | .049120            | 052225             |
| 50       | 020745           | .006333            | .004682<br>- 001452 |                    | .048120            | .052235<br>.057739 |
| 51       | 028123           | .003585            | 001652<br>008952    | .048776            | .053813<br>.055694 |                    |
| 52<br>53 | 029297           | .007050<br>.008025 |                     | .051689            |                    | .060830            |
| 53<br>54 | 029341<br>027538 | .010994            | 010708<br>016040    | .048768<br>.047094 | .048375<br>.035324 | .055776<br>.046421 |
| 74       | - • 02 1330      | . 010774           | .010040             | • 07 1077          | . 033367           | .070721            |
| 55       | 026619           | .016909            | 030307              | .051061            | .020461            | .035914            |
| 56       | 027343           | .025095            | 041489              | .051449            | .009924            | .027686            |
| 57       | 032106           | .030940            | 040701              | .054673            | .013932            | .031988            |
| 58       | 035974           | .034518            | 040961              | .061842            | .032658            | .048186            |
| 59       | 030150           | .039715            | 042557              | .075307            | .055370            | .070632            |
| 77       | 030130           | .037113            |                     | .019301            | . 077310           | .010032            |
| 60       | 026372           | .044598            | 039313              | .086050            | .075535            | .090030            |
|          | • 020312         | * O44770           | ,,,,,,              | . 000000           |                    | . 0,0030           |

RUN NO. 82E 40M 11-02-62 0916-1025 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| $\mathbf{c}$ |  |  |  |  |
|--------------|--|--|--|--|
|              |  |  |  |  |

| K              | U.V                | U.W                | U, T               | V.W                | <b>V</b> ∗T        | W <sub>0</sub> T    |
|----------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------------|
|                | 10E-02             | 10E-01             | 10E-01             | 10E-02             | 10E~02             | 10E-02              |
| 0              | 108038             | 028005             | 010043             | .023444            | .018266            | .058420             |
| ĭ              | 766869             | 232486             | 097523             | .160516            | .126129            | .649984             |
| ž              | 405548             | 285979             | 122011             | 096590             | .011186            | .860885             |
| 3              | . 194596           | 303448             | 124063             | 434090             | 081658             | .916663             |
| •              | .314040            | 184358             | 070207             | 466794             | .018221            | • 599657            |
| 5<br>6         | .030834<br>106133  | 065775<br>023190   | 026376<br>014611   | 359871<br>274151   | .084048<br>.054999 | .317016<br>.211920  |
| 7-8            | 105231             | 017922             | 010276             | 121708             | .078461            | .142677             |
| 9-11           | 037648             | 014283             | 005043             | .011669            | .041724            | .137641             |
| 12-15          | 038527             | 011874             | 003709             | 030728             | .002357            | .058923             |
| 16-20          | 028684             | 001233             | 001973             | 006829             | .011307            | .024264             |
| 21-27<br>28-36 | .004245<br>016352  | 001162<br>000161   | 000916<br>000859   | .005857<br>.006693 | .007807<br>.005979 | .015973<br>.007024  |
| 37-47          | 005937             | .000480            | 000395             | 001314             | •001285            | .003537             |
| 48-60          | 002501             | .000704            | 000259             | .000754            | .000259            | .001562             |
| QUADRATURE     | SPECTRUM           |                    |                    |                    |                    |                     |
| K              | U, V               | U, W               | U.T                | V.W                | V.T                | W.T                 |
| •              | 0,,                | <b>07</b> W        | 071                | ***                | •••                | •••                 |
|                | 10E-02             | 10E-02             | 10E-02             | 10E-02             | 10E-02             | 10E-02              |
| 1              | 278663             | 215894             | 160470             | 026652             | 001654             | .109703             |
| 2              | 038961             | 307125             | 215214             | .085541            | .079495            | .034238             |
| 3              | . 365386           | 531581             | 296257             | 034897             | .120776            | .002899             |
| 5              | - 152079<br>058074 | 457108<br>123451   | 243267<br>098022   | 226605<br>161427   | .008458<br>079988  | .04716 <sup>4</sup> |
| 6              | .118335            | 113715             | 042777             | 046323             | 056177             | .020422             |
| 7-8            | 103858             | 137275             | 038706             | 003792             | 022643             | 015586              |
| 9-11           | .069916            | 096574             | 023305             | 053446             | 013656             | 008332              |
| 12-15          | 005935             | .026962            | 004730             | 032407             | 008577             | .002143             |
| 16-20          | .004194            | 015928             | .002914            | 029616             | 004282             | .001853             |
| 21-27          | 007512             | 010450             | .000183            | 002854             | 004042             | 002081              |
| 28-36          | 004691             | 004874             | .000398            | 001759             | 000503             | 005296              |
| 37-47<br>48-60 | 000756<br>.000001  | 001374<br>000830   | 001132<br>000715   | 003302<br>.002595  | 000674<br>.000529  | 001714<br>000301    |
| POWER SPECT    | FRUM               |                    |                    |                    |                    |                     |
| K              | U                  | v                  | W                  | т                  | N                  | RHO(W)              |
|                |                    |                    |                    |                    |                    |                     |
|                | 10E-01             | 10E-01             | 10E-01             | 10E-02             | 10E-01             | 10E-02              |
| 0              | .065834            | .027309            | .025732            | .030528            | .011227            | .005667             |
| 1              | . 566041           | .240103            | .254426            | .375638            | .128940            | .073719             |
| 2              | .711869            | .294168            | .364635            | • 470181           | -179463            | -102041             |
| 3              | •770531<br>•495802 | .319834<br>.250038 | .442304            | . 453743           | .198125<br>.130351 | .110085<br>.072359  |
| 4              |                    |                    | .320052            | .279121            |                    |                     |
| 5              | - 260201           | .190465            | .195048            | -149518            | .072124            | .039531             |
| 6              | .189913<br>.138496 | .158562<br>.117032 | .157437<br>.119342 | •105474<br>•091569 | .057052<br>.046429 | .029782<br>.024909  |
| 7-8<br>9-11    | .086751            | .062898            | .103750            | .057230            | .029529            | .015601             |
| 12-15          | .063410            | .038708            | .057163            | .030145            | .018812            | .009205             |
| 16-20          | .035120            | .022499            | .033387            | .016043            | .010478            | .004429             |
| 21-27          | . 020425           | .015218            | .019591            | .009947            | .006410            | .002681             |
| 28-36          | .015024            | .009818            | .011456            | .006955            | .002971            | .001452             |
| 37-47          | .010294            | .006688            | .006425            | .003852            | .001608            | .000751             |
| 48-60          | .008294            | .004332            | .004436            | .002691            | .000886            | .000439             |

RUN NC. 82E 40M 11-02-62 0916-1025 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

#### COSPECTRUM

| K     | U, N    | U,RHO(W) | V , N   | V,RHD(W) | W.N     | W,RHO(W) | T , N   | T,RHO(W) | N,RHO(W) |
|-------|---------|----------|---------|----------|---------|----------|---------|----------|----------|
|       | 10E-01  | 10E-02   | 10E-02  | 10E-02   | 10E-01  | 10E-02   | 10E-02  | 10E-02   | 10E-02   |
| 0     | 006532  | 028728   | 031156  | 001723   | .005806 | .019994  | .029131 | .010251  | .023488  |
| 1     | 075436  | 299067   | 300630  | 025725   | .083145 | . 252584 | .466485 | .143814  | .293696  |
| 2     | 112143  | 402828   | 542014  | 085899   | .135871 | . 376424 | .668985 | .193805  | .412392  |
| 3     | 145124  | 459553   | 661154  | 122215   | .172763 | . 446437 | .732044 | .200979  | .454070  |
| 4     | 101349  | 291117   | 319849  | 048731   | .127414 | .315432  | .491647 | .130304  | .300532  |
| 5     | 032926  | 101157   | 118086  | 004033   | .073671 | .177062  | .265641 | .070196  | .165192  |
| 6     | 006167  | 036488   | 135251  | 011836   | .053422 | .125124  | .191121 | .050170  | .127327  |
| 7-8   | 006222  | 028816   | 033046  | .009171  | .034780 | .082333  | .163372 | .043180  | .105062  |
| 9-11  | 003712  | 015256   | .008806 | .009015  | .027416 | .069469  | .100555 | .026741  | .066170  |
| 12-15 | 005421  | 015548   | 036107  | 005312   | .015188 | .035358  | .055374 | .014446  | .040571  |
| 16-20 | 001332  | 005763   | 005416  | .001176  | .005175 | .012763  | .019607 | .006076  | .020531  |
| 21-27 | .000066 | 001569   | .008913 | .002870  | .002301 | .006675  | .011387 | .003634  | .012466  |
| 28-36 | 001037  | 003265   | .001980 | .001422  | .001553 | .003746  | .007712 | .002491  | .006194  |
| 37-47 | 000073  | 000813   | 000781  | .000109  | .000647 | .001668  | .003493 | .001254  | .003230  |
| 48-60 |         | 000804   |         | 000104   | .000233 | .000693  | .001965 | .000802  | .001792  |

### QUADRATURE SPECTRUM

| K     | U.N     | U+RHO(W) | V,N     | V.RHO(W) | W. N    | W#RHO(W) | T,N     | T,RHO(W) | N,RHD(W) |
|-------|---------|----------|---------|----------|---------|----------|---------|----------|----------|
|       | 10E-02  | 10E-02   | 10E-02  | 10E-03   | 10E-02  | 10E-03   | 10E-03  | 10E-03   | 10E-03   |
| 1     | 483688  | 107796   | .314265 | .504582  | .218736 | .557061  | .284558 | .047193  | 050868   |
| 2     | 596311  | 135924   | .351034 | .711745  | .183316 | . 363475 | .590440 | .097025  | 104370   |
| 3     | 792330  | 182500   | .255245 | .629982  | .063814 | .113185  | .719759 | .118235  | 125121   |
| 4     | 504260  | 126312   | 075908  | 108974   | .046395 | .163578  | .206602 | .034550  | 034217   |
| 5     | 099295  | 034128   | 245778  | 542467   | .161374 | .353430  | 077634  | 012337   | .013717  |
| 6     | 035241  | 013531   | 171726  | 380831   | .171325 | . 317597 | .086262 | .013930  | 016376   |
| 7-8   | .023886 | 003288   | 050173  | 123175   | .014039 | 003283   | .155037 | .025293  | 028144   |
| 9-11  | .001447 | 004142   | 027256  | 069543   | .006447 | 004139   | .123018 | .019993  | 022551   |
| 12-15 | .016867 | .001936  | 035969  | 073513   | .017093 | .031996  | .093722 | .015255  | 016598   |
| 16-20 | 010410  | 001121   | 006054  | 017407   | .018664 | .033296  | •° 3492 | .010250  | 011149   |
| 21-27 | .002743 | .000416  | 012541  | 027846   | .012883 | .017126  | .051981 | .008469  | 009056   |
| 28-36 | 004148  | 000649   | .000929 | .000477  | 002186  | 013321   | .037255 | .005898  | 006879   |
| 37-47 | .001605 | .000065  | 000249  | 001580   | .001053 | 001773   | .016742 | .002661  | 002998   |
| 48-60 | .000106 | 000100   | 000327  | .000292  | .000509 | .000222  | -004229 | -000731  | 000742   |

RUN NO. 82E 40M 11-02-62 0916-1025 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

| H        | U.V                | U.W               | U,T                                     | V.M                | V. T               | WeT                |
|----------|--------------------|-------------------|---|--------------------|--------------------|--------------------|
|          | 0.33693            | 0.33284           | 0.12470                                 | 0.21612            | 0.80971            | 0.79989            |
|          | 10E -00            | 10E 00            | 10E 00                                  | 10E 00             | 10E-01             | 106-01             |
|          | 100.00             | 100 00            | .00                                     | 102 00             | 102 01             |                    |
| 0        | .008478            | 511683            | 644438                                  | 141245             | 031856             | .665119            |
| ĭ        | .029284            | 301764            | 388408                                  | 087361             | 091372             | .347599            |
| 2        | .044978            | 088292            | 155672                                  | 082000             | 058144             | .101456            |
| 3        | .086824            | 037352            | 072820                                  | 117440             | 088646             | .066433            |
| 4        | .101927            | .032085           | 011251                                  | 061726             | 107805             | .002731            |
|          |                    |                   |   |                    |                    |                    |
| 5        | .044988            | .085845           | .029369                                 | 036487             | 036216             | .003602            |
| 6        | .002572            | .132356           | .064633                                 | -022518            | .019983            | 007591             |
| 7        | 061549             | .113028           | .056159                                 | .103012            | .101640            | 046694             |
| 8        | 123582             | .069105           | .064619                                 | .131749            | .134829            | 087265             |
| 9        | 145873             | .056552           | .103888                                 | .125194            | .107580            | 090097             |
|          |                    |                   |   |                    |                    |                    |
| 10       | 143094             | .037016           | .110858                                 | .125643            | .101821            | 029022             |
| 11       | 131397             | .067547           | .150260                                 | .125194            | .092301            | 070471             |
| 12       | 100571             | .041871           | -120125                                 | .063062            | .062412            | 100112             |
| 13       | 064880             | 001768            | -078100                                 | .002593            | .034297            | 062577             |
| 14       | 035385             | .008711           | -085614                                 | .017841            | .046169            | 101255             |
|          | 042024             | 005204            | 004472                                  | 013534             | 000470             | - 100550           |
| 15       | .042934            | .005294           | .086472                                 | .013524<br>030536  | .000479<br>.004146 | 108558             |
| 16<br>17 | .064978<br>.053615 | 002547<br>.008544 | .054236<br>.028309                      | 014326             | .022020            | 071167<br>.002051  |
| 18       | .093077            | 023285            | 007426                                  | .009585            | 011408             | 003395             |
| 19       | .099121            | 050445            | 039511                                  | .002466            | 030468             | .004105            |
| • •      | .077121            | 1030443           | •03/311                                 | 1002400            | *030400            | .004103            |
| 20       | .048259            | 041167            | 009795                                  | 037394             | 036589             | 004844             |
| 21       | .040216            | 012388            | .016273                                 | 035942             | 046158             | 037601             |
| 22       | .047355            | 025490            | .001313                                 | 048905             | 072280             | 006385             |
| 23       | .033213            | 014055            | .022445                                 | 015573             | 053943             | 028896             |
| 24       | 004881             | .038249           | .046931                                 | 001648             | .019327            | 031846             |
|          |                    |                   |   |                    |                    |                    |
| 25       | .015389            | .075319           | .040891                                 | 029438             | 040157             | .004232            |
| 26       | .098428            | .056780           | .034368                                 | 069281             | 088784             | 025637             |
| 27       | .089007            | -067987           | .018106                                 | 080650             | 082231             | 044208             |
| 28       | .024483            | .121261           | .044290                                 | 055432             | 071811             | 093150             |
| 29       | .024715            | .072433           | 000947                                  | 021241             | 054383             | 069425             |
|          |                    |                   | 725050                                  |                    |                    |                    |
| 30       | 024656             | 003304            | 078185                                  | .025483            | 014027             | .007677            |
|          |                    |                   |   |                    |                    |                    |
| COSPECTR | 4 100              |                   |   |                    |                    |                    |
| COSPECIA | · ·                |                   |   |                    |                    |                    |
| K        | U,V                | U, W              | U, T                                    | V,W                | V,T                | W,T                |
|          | 0,1                | 0,"               | • | ***                | • • •              | .,,,               |
|          |                    |                   |   |                    |                    |                    |
|          | 10E-01             | 10E-01            | 10E-01                                  | 10E-01             | 10E-02             | 10E-02             |
|          |                    |                   |   |                    |                    |                    |
| 0        | 013397             | 018326            | 009733                                  | .004669            | .026352            | .086035            |
| 1        | 025612             | 107223            | 085959                                  | 021843             | 039865             | -584129            |
| 2        | .084202            | 136892            | 102108                                  | 078552             | 266608             | .593421            |
| 3        | .170394            | 211344            | 110417                                  | 114710             | 374697             | -580060            |
| 4        | .078957            | 209234            | 077820                                  | 077910             | 206540             | .412195            |
| II e     | - 061303           | _ 173430          | _ 051004                                | - 015500           | - 010450           | 210150             |
| 5        | 061283             | 173429<br>151392  | 051096                                  | 015590             | 018650             | .319152            |
| 6        | 091018             | 151392            | 051683                                  | .027652            | .103466            | .333829            |
| 8        | 059189<br>040661   | 084189            | 049377<br>042320                        | .034104<br>.015235 | .161809<br>.124156 | •292628<br>•207515 |
| 9-11     | 010622             | 048581            | 030400                                  | .000457            | .026312            | .253479            |
| 2-11     | - • 010022         | - 0 40 701        | - 10 30 400                             | .000471            | . 020312           | • 6 33717          |
| 12-14    | .000993            | 064012            | 023978                                  | 008860             | 039974             | .185035            |
| 15-21    | .005430            | 038866            | 015680                                  | 008060             | .001313            | .132312            |
| 22-30    | 006794             | 015648            | 009248                                  | 005249             | .055160            | .077638            |
|          |                    |                   |   |                    |                    |                    |

RUN NO. 82E 40M 11-02-62 0916-1025 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

| M       | U, N              | U.RHO(W)          | V.N               | V,RHO(W)          | W. N              | W, RHO(W)         | T,N               | T,RHO(W)          | N,RHO(W)          |
|---------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
|         | 0.28108<br>10E 00 | 0.63234<br>10E-01 | 0.18251<br>10E 00 | 0.41058<br>10E-01 | 0.18029<br>10E 00 | 0.40560<br>10E-01 | 0.67549<br>10E-01 | 0.15196<br>10E-01 | 0.34252<br>10E-01 |
| 0       | 345703            | 479297            | 135177            | 109469            | .538252           | .626050           | -682190           | .849462           | .965269           |
| i       |                   | 297286            |                   |                   | .257532           | .310265           | .349265           | .442633           | .559166           |
| 2       |                   | 143213            |                   |                   | .107321           | .114006           | .168296           | .197933           | . 324465          |
| 3       |                   | 120047            |                   |                   | .135975           | .121872           | .153606           | .145602           | .279502           |
| 4       | _                 | 069567            |                   |                   | .086557           | .063542           | .099240           | .070714           | .191155           |
| 5       | 064246            | 035906            | .038203           | .014718           | .085477           | . 063245          | .121621           | .101334           | .168671           |
| 6       | 039643            | 005653            | .076378           | .062124           | .050449           | .034013           | .102975           | .089130           | .104444           |
| 7       | 045882            |                   | .103346           |                   | 000982            |                   | .036196           | .024836           | .008492           |
| 8       | .010648           | .030989           | .088747           |                   | 074153            |                   |                   |                   |                   |
| 9       | .082937           | .096823           | .058282           | .080728           | 111042            | 112251            | 133845            | 149254            | 175639            |
| 10      | .092228           | -106121           | .059543           | .079758           | 048272            | 045436            | 076189            | 092850            | 104143            |
| 11      | .113942           | .135908           | .051528           |                   | 084403            |                   |                   |                   |                   |
| - 1     | .111571           | .123351           | .021103           |                   | 125234            |                   |                   |                   |                   |
| 13      | .078715           | .084436           | .033837           |                   | 070079            |                   |                   |                   |                   |
| 14      | .082156           | .089849           | .058577           | .058877           | 099150            | 108359            | 155776            | .176713           | 225063            |
| 15      | .071180           | .082604           | .046353           | .033103           | 102627            | 113095            | 149492            | 167151            | 216119            |
| 16      | .056644           | .060082           | .039957           | .030410           | 082793            | 085170            | 119990            | 127209            | 174367            |
| 17      | .083264           | .070064           | .030894           |                   | 049913            |                   |                   |                   |                   |
| 18      | .054155           | .036503           | .003573           | 001302            | 087374            | 064332            | 112644            | 094056            | 180627            |
| 19      | .017863           | 000897            |                   |                   | 082050            |                   |                   |                   |                   |
| 20      | .042441           | -027214           | 038684            | 041201            | 062030            | 046570            | 090724            | 077834            | 101797            |
| 21      | .054922           |                   |                   |                   | 055768            |                   |                   |                   |                   |
| 22      | .012548           |                   | 113999            |                   |                   |                   |                   | 067993            |                   |
| 23      | 011069            |                   | 120419            |                   | .016771           |                   |                   | 075858            |                   |
| 24      |                   | 012303            |                   |                   | .018639           |                   |                   | 014766            |                   |
| 25      | 030712            | 007454            | 045625            | 047073            | .035779           | .027468           | .019581           | .010955           | .001309           |
| 26      |                   | 018346            |                   |                   |                   | .007432           |                   |                   | .025012           |
| 27      |                   | 021071            |                   |                   |                   | 005525            | .027978           | .016910           | .015691           |
| 28      | .010511           |                   |                   |                   | 021367            |                   |                   |                   |                   |
| 29      |                   |                   |                   |                   | 015569            |                   |                   |                   |                   |
| 30      | 030305            | 049584            | 000633            | 005671            | .017856           | .015506           | 008383            | .017587           | 079726            |
| COSPECT | RUM               |                   |                   |                   |                   |                   |                   |                   |                   |
| K       | U, N              | U,RHO(W)          | V • N             | V,RHO(W)          | W.N               | W.RHO(W)          | T,N               | T.RHOIHS          | N,RHO(W)          |
| N.      | 0,11              | OJANO(N)          | * * * * *         | VI KIIO ( W )     | W <b>y</b> 10     | H, KNO(H)         | , , , ,           | TANIOTHE          | NI KNOEW!         |
|         | 10E-01            | 10E-02            | 10E-02            | 10E-02            | 10E-01            | 10E-02            | 10E-02            | 10E-02            | 10E-02            |
| 0       | 031847            | 069280            | .179244           | .033849           | .022016           | .051346           | .109578           | .026318           | .102688           |
| 1       | 212819            | 501041            | .335806           | .046964           | .156720           | . 360594          | .834619           | .204585           | .665136           |
| 2       |                   | 513979            |                   |                   | .149544           | .350678           | .763146           | .194060           | .592837           |
| 3       |                   | 443291            |                   |                   | .112819           | .288464           |                   | .146615           | .425468           |
| 4       | 061106            | 240117            | 380095            | 099567            | .059999           | .172051           | .251289           | .078894           | .218090           |
| 5       | 018581            | 122696            | 383633            | 065826            | .037555           | .118708           | .147621           | .049057           | -153098           |
| 6       |                   | 107192            |                   |                   | .021187           | .094912           | .111992           | .047569           | .105844           |
| 7       |                   | 135974            |                   |                   | .021973           | .088697           | .135358           | .054617           | .076847           |
| 8       |                   | 148932            |                   |                   | .028164           | .083143           | .160203           | .053894           | .086459           |
| 9-11    | 03109B            |                   |                   |                   | .040518           | .111766           | .223627           | .063388           | .127003           |
|         |                   | 07004             |                   | 001-0-            |                   |                   |                   |                   |                   |
| 12-14   | 016864            |                   |                   |                   | .031814           | .085184           | .123933           | .034931           | -080327           |
| 15-21   |                   | 069824            |                   |                   | .028659           | .070354           | •112632           | .029440           | .069030           |
| 22-30   | 010349            | 035519            | •UZ9683           | .014/40           | .019665           | .045968           | .093497           | .024914           | .056642           |
|         |                   |                   |                   |                   |                   |                   |                   |                   |                   |

RUN NC. 82E 40M 11-02-62 0916-1025 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

| MORNAL TRES | OU ACOA FUR E     | COMARTANCE |
|-------------|-------------------|------------|
| NORMALIZED  | <b>UUAUKATUKE</b> | LUVAKIANLE |

| М         | U, V                                    | U, W    | U, T    | V.W     | v,r     | W.T     |
|-----------|---|---------|---------|---------|---------|---------|
|           | 0.33693                                 | 0.33284 | 0.12470 | 0.21612 | 0.80971 | 0.79989 |
|           | 10E 00                                  | 10E 00  | 10E 00  | 10E 00  | 10E-01  | 10E-01  |
|           | 100 00                                  | 100 00  | 101 00  | 100 00  | 101 01  | 100 01  |
| 1         | .031902                                 | 067651  | 065946  | 002862  | .015698 | .025677 |
| 2         | .043064                                 | 083432  | 051096  | .065558 | .044974 | 007955  |
| 3         | .031196                                 | 091464  | 038613  | .004853 | 025169  | .002271 |
| 4         | .081372                                 | 134494  | 068076  | .025839 | .013109 | 050211  |
| 5         | .114405                                 | 113261  | 038127  | .057658 | .030099 | 101809  |
| -         | • |         |         |         |         |         |
| 6         | .058904                                 | 121975  | 041278  | .043110 | .002817 | 098367  |
| 7         | .045312                                 | 158790  | 107513  | .028755 | .006849 | 094920  |
| 8         | .005980                                 | 070763  | 089656  | 020374  | 018144  | 005799  |
| 9         | 017185                                  | 041256  | 089461  | 026344  | 029744  | .029619 |
| 10        | .014348                                 | 075731  | 113072  | 017181  | .048377 | .015564 |
|           |   | 164     |         |         |         |         |
| 11        | .029455                                 | 070745  | 122337  | .032992 | .093116 | .004049 |
| 12        | .012018                                 | .022565 | 089669  | .056449 | .065450 | .010213 |
| 13        | 014988                                  | .004914 | 058366  | .042170 | .000461 | .000112 |
| 14        | 049373                                  | .022120 | 028364  | .053073 | 057069  | 002496  |
| 15        | 066133                                  | .040952 | 002479  | .083733 | 029310  | 002944  |
| 16        | 066220                                  | .046335 | .006625 | .037917 | 029180  | .025565 |
| 17        | 091185                                  | .057255 | .025618 | .016648 | .000909 | .022005 |
| 18        | 065677                                  | .056558 | .061358 | 002785  | .010922 | .002677 |
| 19        | 014551                                  | .054006 | .062538 | 005349  | .003887 | .030616 |
| 20        | .000715                                 | .105462 | .103756 | 016403  | 006606  | .048249 |
|           |   |         |         |         |         |         |
| 21        | 020498                                  | .114230 | .115751 | 055381  | 015715  | .033693 |
| 22        | 012703                                  | .071317 | .116433 | 080519  | 049460  | 002809  |
| 23        | .040700                                 | 000677  | .100182 | 006815  | 013023  | 059552  |
| 24        | .039397                                 | 067645  | .031127 | 023254  | .005166 | 056216  |
| 25        | .035050                                 | 056440  | .014775 | 063241  | 018111  | 032766  |
| 26        | .067731                                 | 057296  | 007967  | 006552  | .005346 | 000029  |
| 27        | .112201                                 | 036250  | 022149  | .001264 | .057201 | .035533 |
| 28        | .109749                                 | 010143  | .006071 | 014058  | .076344 | .011091 |
| 29        | .067687                                 | 024893  | 007382  | 041360  | .025823 | 021188  |
| 30        | .027657                                 | 001225  | 009590  | 066421  | 024967  | 015137  |
| QUADRATUS | RE SPECTRUM                             |         |         |         |         |         |
|           |   |         |         |         |         |         |
| K         | U,V                                     | U, N    | U, T    | V,W     | V , T   | W, T    |
|           |   |         |         |         |         |         |
|           | 10E-01                                  | 10E-01  | 10E-02  | 10E-02  | 10E-02  | 10E-02  |
|           |   |         |         |         |         |         |
| l         | .013909                                 | 112900  | 563858  | .465400 | .057529 | 092286  |
| 2         | .072389                                 | 172041  | 587727  | .278221 | .066543 | 140636  |
| 3         | .104897                                 | 159697  | 207028  | .001210 | .024365 | 170708  |
| 10        | .043754                                 | 060728  | .128003 | .133155 | 032210  | 099668  |
| 5         | .018787                                 | 031529  | .005793 | .372730 | 012611  | 041668  |
| 6         | .031544                                 | 011445  | 069745  | .171243 | .059711 | .044793 |
| 7         | .011591                                 | 001327  | 115776  | 091150  | .108118 | .147885 |
| 8         | 029623                                  | 012645  | 118436  | 157370  | .012358 | .135329 |
| 9-11      | 017330                                  | 004972  | 054969  | .011257 | 030028  | .031642 |
| 12-14     | .017647                                 | 016978  | 025924  | .117013 | .062801 | 032280  |
| 0.0       | - 61                                    |         |         | 20.     |         |         |
| 15-21     | .008119                                 | 009033  | 064384  | 072846  | .005181 | .014206 |
| 22-30     | 005038                                  | .004775 | .011899 | 111556  | 043230  | .024994 |
|           |   |         |         |         |         |         |

RUN NG. 82E 40M 11-02-62 0916-1025 EST 301 POINT RUWNING HEAN, 10 POINT BLOCK AVERAGE

| M   | U, N    | U,RHO(W) | V, N      | V,RHO(W) | W.N                | W. RHO(W) | T , N   | T.RHO(W) | N,RHO(W) |
|-----|---------|----------|-----------|----------|--------------------|-----------|---------|----------|----------|
|     | 0.28108 | 0.63234  | 0.18251   | 0.41058  | 0.18029            | 0.40560   | 0.67549 | 0.15196  | 0.34252  |
|     | 10E 00  | 10E-01   | 10E 00    | 10E-01   | 10E 00             | 10E-01    | 10E-01  | 10E-01   | 10E-01   |
| 1   | 102048  | 097016   | .064365   | .052156  | .016246            | .020700   | .000604 | .000200  | 000275   |
| 2   | 114986  | 101038   | .170313   | .139130  | 026063             | 021465    | 000574  | 000412   | .000386  |
| 3   | 105814  | 090159   | .104650   | .066635  | 037448             | 026311    | 048585  | 035353   | .017163  |
| 4   | 158770  | 139051   | .136194   | .102710  | 087311             | 080586    | 039044  | 027756   | .014485  |
| 5   | 135668  | 112051   | .124607   | .100726  | 112544             | 117191    | 047673  | 033813   | .017590  |
| 6   | 105539  | 091241   | .091548   | .067238  | 100053             | 107388    | 067805  | 048589   | .024431  |
| 7   | 124160  | 128524   | .052647   | .040368  | 116675             | 118173    | 052439  | 037220   | .019090  |
| 8   | 066604  | 080377   | .008558   | 000598   | 114516             | 084781    | 085689  | 061561   | .030888  |
| 9   | 040635  |          | .005277   | 007423   | 095025             | 057976    | 060604  | 043548   | .022055  |
| 10  | 072632  | 092765   | .060037   | .060254  | 068917             | 043858    | 006924  | 004588   | .002928  |
| 11  | 101813  | 117206   | .089275   | .097383  | 028476             | 018837    | .021033 | -015203  | 007350   |
| 12  |         | 090159   | .066275   | .071039  | .001321            | .004845   | .032803 |          | 011392   |
| 13  |         | 062312   | .048365   | .034832  | .020637            | .014706   | .026623 |          | 009332   |
| 14  |         |          |           | 020864   | .072354            | .051374   | .031651 |          | 011439   |
| 15  | 014657  |          | .029841   | .011415  | .061598            | .043683   | .049482 |          | 017342   |
| • - | ******  | ••••     | ******    |          | ****************** | ••••      |         |          |          |
| 16  | .013847 | .012350  | .007885   | 004687   | .043956            | .041008   | .034564 | .024851  | 012274   |
| 17  | .074295 | .063071  | 002637    | 001417   | .011754            | .016483   | 001880  | 001348   | .000838  |
| 18  | .119031 | .107981  | 023285    | 012433   | 023879             | 016321    | 015333  | 011186   | .005140  |
| 19  | -116603 | .106619  | 045369    | 030653   | .014052            | .021061   | 018951  | 013744   | .006742  |
| 20  | .132985 | .133135  | 057204    | 043498   | .025011            | .035353   | 001610  | 001428   | .000583  |
| 21  | -154438 | .153287  | 045330    | 037873   | 003609             | .009162   | 029046  | 021449   | .010219  |
| 22  | .141833 |          |           | 058136   |                    |           |         |          | .015245  |
| 23  | .083009 |          | 015346    |          |                    | 020056    |         |          | .010129  |
| 24  | .015661 |          |           | 002062   |                    | 019686    |         |          | .008326  |
| 25  | .010980 |          | 038102    |          |                    | 009726    |         |          | .012585  |
|     |         |          | ,,,,,,,,, |          |                    |           |         |          |          |
| 26  |         |          | 015369    |          | .012698            |           | 024079  |          | .008359  |
| 27  | 050269  |          |           | .006799  | .037999            |           | 001829  |          | .000570  |
| 28  | 026423  |          |           | .030688  | .003409            |           | 000443  |          |          |
| 29  | 022132  |          |           |          | 053473             |           | 005221  |          | .001491  |
| 30  | 023280  | 020606   | 018776    | 022527   | 047051             | 039121    | .001430 | .001099  | 000810   |

# QUADRATURE SPECTRUM

| K      | U. N    | U,RHO(W) | V , N   | V,RHO(W) | W. N    | W, RHO(W) | T.N     | T.RHO(W) | N,RHO(W) |
|--------|---------|----------|---------|----------|---------|-----------|---------|----------|----------|
|        | 10E-01  | 10E-02   | 10E-02  | 10E-02   | 106-02  | 10E-02    | 10E-02  | 10E-03   | 10E-03   |
| 1      | 132693  | 318037   | .809358 | .141608  | 613078  | 115897    | 099666  | 159762   | .187707  |
| 2      | 176685  | 394081   | .788567 | .139665  | 707232  | 140049    | 116842  | 187281   | .217298  |
| 3      | 112043  | 219873   | .580484 | .098559  | 685376  | 142155    | 166512  | 268788   | .304371  |
| 4      | 034359  | 032647   | .412631 | .061602  | 224043  | 054369    | 081774  | 132676   | .148406  |
| 5      | 069274  | 111414   | .514096 | .081494  | .216674 | .027756   | .047669 | .076899  | 086640   |
| 6      | 058371  | 107045   | .469377 | .087015  | .242159 | .047503   | .069005 | .110750  | 125566   |
| 6<br>7 | 016076  | 046516   | .280028 | .064973  | .063993 | .037269   | .028631 |          | 052597   |
| 8      | 002819  | 025395   | .098017 | .018027  | .011145 | .026320   | 005141  | 009143   | .008682  |
| 9-11   | 006512  | 020385   | 013430  | 007506   | .078397 | .018169   | 005810  | 010196   | .008989  |
| 12-14  | 015814  | 030280   | .141602 | .034557  | .056862 | .003438   | .032817 | .053421  | 059191   |
| 15-21  | 015263  | 0.46448  | 032443  | 004437   | .004645 | .003309   | .006312 | .010504  | 010494   |
| 22-30  | .005344 | .010781  | 136996  | 030017   | .050610 | .012557   | 019448  |          | .033353  |

RUN NO. 82E 40M 11-02-62 0916-1025 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

| M     | U        | ٧        | W                                       | τ                                       | N        | RHO(W)   |
|-------|----------|----------|---|---|----------|----------|
|       | 0.51890  | 0.21877  | 0.21349                                 | 0.29969                                 | 0.15225  | 0.77058  |
|       | 10E 00   | 10E 00   | 10E 00                                  | 10E-01                                  | 10E 00   | 10E-02   |
|       | 100 00   | 102 00   | 100 00                                  | 106-01                                  | 100 00   | 100 02   |
| 0     | 1.000000 | 1.000000 | 1.000000                                | 1.000000                                | 1.000000 | 1.000000 |
| ĭ     | .602098  | .472090  | .383029                                 | .533503                                 | .601939  | .561646  |
| ž     | .285527  | .223914  | .051369                                 | .213346                                 | .365914  | .305159  |
| 3     | .155784  | .117264  | .058879                                 | .097312                                 | .311468  | .253609  |
| 4     | .045401  | 046962   | 029446                                  | 002764                                  | .215962  | .163131  |
| 10    | 1043401  | *040702  | *027440                                 | ********                                | .213702  |          |
| 5     | 088152   | 072872   | 082796                                  | .037936                                 | .173236  | .158078  |
| 6     | 170108   | 126349   | 108099                                  | .040943                                 | .093690  | .107313  |
| 7     | 198080   | 175383   | 073764                                  | 002957                                  | 005722   | .014699  |
| 8     | 157350   | 211595   | 085143                                  | 082423                                  | 131489   | 114467   |
| 9     | 204301   | 157431   | 117128                                  | 147673                                  | 177149   | 180028   |
|       |          |          |   |   |          |          |
| 10    | 247383   | 167880   | 068350                                  | 105692                                  | 106336   | 108498   |
| 11    | 264211   | 134774   | 049040                                  | 171816                                  | 143324   | 157542   |
| 12    | 211766   | 121278   | 086225                                  | 189935                                  | 200941   | 206943   |
| 13    | 157926   | 114965   | 048038                                  | 154888                                  | 164448   | 162615   |
| 14    | 137413   | 086751   | 086473                                  | 179799                                  | 234875   | 225510   |
|       |          |          |   |   |          |          |
| 15    | 091182   | 118613   | 087709                                  | 165850                                  | 225739   | 215545   |
| 16    | 041529   | 046394   | 043472                                  | 114921                                  | 182480   | 170987   |
| 17    | 000035   | .005398  | .000873                                 | 060301                                  | 199344   | 173644   |
| 18    | .051156  | .005980  | 013328                                  | 035534                                  | 194387   | 164048   |
| 19    | .079056  | .010050  | 045222                                  | 009991                                  | 140755   | 120493   |
|       |          |          |   |   |          |          |
| 20    | .066993  | 006997   | 032884                                  | 034196                                  | 096150   | 101322   |
| 21    | .079831  | 005852   | 040670                                  | 080029                                  | 071659   | 098009   |
| 22    | .112009  | .030465  | .035613                                 | 078458                                  | .009301  | 033986   |
| 23    | . 095693 | .060597  | .041988                                 | 102303                                  | .018573  | 031659   |
| 24    | .008667  | .060469  | .038581                                 | 044293                                  | .014056  | .002795  |
|       |          |          |   |   |          |          |
| 25    | 007352   | .015359  | .032965                                 | 008297                                  | 007863   | .004776  |
| 26    | 026080   | .045345  | 027596                                  | 005596                                  | .016483  | .026646  |
| 27    | 046468   | .062400  | 016325                                  | 009090                                  | .008151  | .017226  |
| 28    | 076042   | .054657  | 062973                                  | 078698                                  | 071295   | 068957   |
| 29    | 038941   | .081058  | 073663                                  | 036317                                  | 098835   | 076372   |
| 30    | .0.26791 | .100727  | .028771                                 | .066797                                 | 105902   | 051552   |
| ,,    | •••••    |          | *************************************** | *************************************** | ••••     | *******  |
|       |          |          |   |   |          |          |
| POWER | SPECTRUM |          |   |   |          |          |
|       |          |          |   | _                                       | -        |          |
| K     | U        | ٧        | W                                       | T                                       | N        | RHO(W)   |
|       |          |          |   |   |          |          |
|       | 105-01   | 105-01   | 105-01                                  | 105-02                                  | 105-01   | 10E-02   |
|       | 10E-01   | 10E-01   | 10E-01                                  | 10E-02                                  | 10E-01   | 106-02   |
| 0     | 040272   | .011352  | .018277                                 | .047054                                 | .051053  | .021432  |
| 0     | .040273  | .151464  | .140461                                 | .381124                                 | .316600  | .145046  |
| 1     | .432087  |          |   |   | .279975  |          |
| 2     | .678808  | .230313  | .164829                                 | .387140                                 |          | .131417  |
| 3     | .857145  | .281023  | .183551                                 | . 33 7798                               | .203575  | .095658  |
| 4     | • 598990 | .228310  | .161357                                 | .210138                                 | .106234  | .049721  |
| •     | 270522   | 170405   | 144360                                  | 120700                                  | 077922   | 022720   |
| 5     | .370532  | .170695  | .146358                                 | .138700                                 | .077823  | .033738  |
| 6     | . 323951 | • 135642 | .130136                                 | .162440                                 | .052765  | .025777  |
| 7     | . 283644 | .109292  | .115937                                 | .180147                                 | .032254  | •022367  |
| 8     | .238571  | .081916  | .096063                                 | .153861                                 | .035305  | .023823  |
| 9-11  | .138002  | .078170  | .088330                                 | .149665                                 | .053293  | .032093  |
|       | 1.0157   | 05055    | 07/013                                  | 001704                                  | 035404   | 010375   |
| 12-14 |          | .058551  | .074013                                 | .081796                                 | .035626  | .019375  |
| 15-21 |          | .053763  | .077387                                 | .061784                                 | .030054  | .016508  |
| 22-30 | .065168  | .051297  | .050449                                 | .053650                                 | .024409  | .013727  |

RUN NC. 82E 16M 11-02-62 0916-1025 EST RUN NC. 82E 40M 11-02-62 0916-1025 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

# COHERENCE WITH QUADRATURE

| K   | U   | ٧   | W  | T   | N   | RHO(W)  |
|---|---|---|--|---|---|---|
|   | 10E 00  | 10E 00  | 10E 00   | 10E 00  | 10E 00  | 108 00  |
| 0<br>1<br>2<br>3<br>4                     | .750786<br>.543872<br>.396519<br>.303629<br>.182652 | •527723<br>•630699<br>•524144<br>•472141<br>•481266 | • 736339<br>• 698522<br>• 639588<br>• 620000<br>• 642802 | .787491<br>.719573<br>.645976<br>.579920<br>.521807 | .414700<br>.450702<br>.485746<br>.530361<br>.547084 | .582044<br>.567550<br>.559691<br>.566370<br>.559597 |
| 7-8<br>9-11<br>12-15                      | .026654<br>.140741<br>.124487<br>.081456            | .433292<br>.480687<br>.316384<br>.119215            | •498485<br>•355646<br>•230626<br>•201766                 | • 252000<br>• 198592<br>• 144493<br>• 135321        | •238894<br>•156048<br>•148843<br>•108443            | .247422<br>.169754<br>.152739                       |
| 16-20<br>21-27<br>28-36<br>37-47<br>48-60 | •104264<br>•135114<br>•143016<br>•139343<br>•148138 | .141016<br>.108510<br>.114738<br>.110220<br>.161039 | .173201<br>.106187<br>.136254<br>.125920<br>.095790      | .161459<br>.125146<br>.125683<br>.121991<br>.091959 | .108997<br>.103916<br>.117599<br>.107735            | .117499<br>.113166<br>.126416<br>.125275            |

# 301 POINT RUNNING MEAN. 10 POINT BLOCK AVERAGE COHERENCE WITH QUADRATURE

| K                        | U   | v   | W   | T   | N   | RHO(W)  |
|--------------------------|---|---|---|---|---|---|
|                          | 10E 00  | 10E 00  | 10E UG  | 10E 00  | 10E 00  | 10E 00  |
| 0<br>1<br>2<br>3<br>4    | .965338<br>.747385<br>.792720<br>.861035<br>.862123 | •788590<br>•800467<br>•758866<br>•750351<br>•795258 | .933408<br>.845504<br>.785404<br>.770802<br>.776680 | .835096<br>.808081<br>.785839<br>.817193<br>.851023 | •752363<br>•680229<br>•599762<br>•652412<br>•674532 | •829052<br>•742209<br>•687920<br>•730534<br>•769290 |
| 5<br>6<br>7<br>8<br>9-11 | .776184<br>.834651<br>.770430<br>.594839<br>.369912 | .811797<br>.689757<br>.658184<br>.688887<br>.533347 | •779006<br>•801484<br>•758504<br>•600217<br>•739821 | .771340<br>.778943<br>.808635<br>.780026            | •509483<br>•244933<br>•356792<br>•510086<br>•582632 | .619307<br>.473189<br>.580543<br>.634145            |
| 12-14<br>15-21<br>22-30  | • 327763<br>• 310243<br>• 191254                    | •510834<br>•488399<br>•350174                       | .603585<br>.659113<br>.551286                       | .488794<br>.565414<br>.342019                       | •432748<br>•599703<br>•423441                       | .659137<br>.447635<br>.610151                       |

RUN NO. 84A 16M 11-06-62 1246-1401 EST

#### GROSS STATISTICS

| 10 AS SC<br>NEAR NEUTRAL<br>LAND       | HIND SP<br>Sigma a<br>Sigma e   | 13.4 DEG   | WIND DIRE<br>SOLAR RAD<br>NET RADIA   |  |
|--|---|--|---|--|
|  | WITH NO RUNNING MEAN  | WITH 301 POINT<br>RUNNING MEAN   | WITH 61 POINT<br>RUNNING MEAN   | 301 PT RUN MEAN<br>10 PT BLOCK AVG   |
| VARIANCES                              |   |  |   |  |
| U<br>V<br>W<br>T<br>E                  | 0.14351E 01<br>0.17750E 01<br>0.27003E-00<br>0.57278E-01<br>0.17401E 01                   | 0.10271E 01<br>0.97041E 00<br>0.25799E-00<br>0.53675E-02<br>0.11278E 01                  | 0.56006E 00<br>0.59175E 00<br>0.22334E-00<br>0.23945E-02<br>0.68759E 00                   | 0.79107E 00<br>0.70705E 00<br>0.11072E-00<br>0.42277E-02                                 |
| GUSTINESS RATIO                        | s   |  |   |  |
| U<br>V<br>W                            | 0.21861<br>0.24312<br>0.09483   | 0.18494<br>0.17976<br>0.09269  | 0.13656<br>0.14037<br>0.08624   | 0.16230<br>0.15344<br>0.06072  |
| COVARIANCES                            |   |  |   |  |
| U,V<br>U,M<br>U,T<br>V,M<br>V,T<br>H,T | -0.13338E-01<br>-0.23691E-00<br>-0.96681E-01<br>0.76224E-01<br>0.97586E-01<br>0.10887E-01 | 0.20826E-01<br>-0.19826E-00<br>-0.49019E-01<br>0.47427E-01<br>0.44748E-03<br>0.12756E-01 | -0.25361E-01<br>-0.12639E-00<br>-0.18135E-01<br>0.26595E-01<br>0.21604E-02<br>0.76616E-02 | 0.26070E-01<br>-0.14504E-00<br>-0.42525E-01<br>0.42877E-01<br>0.23700E-03<br>0.89212E-02 |
| NORMALIZED COVA                        | 0.19721E-02   | 0.19374E-01  | 0.12262E-01   |  |
| U.V<br>U.M<br>U.T<br>V.M<br>V.T<br>N.T | -0.00836<br>-0.38057<br>-0.33722<br>0.11010<br>0.30605<br>0.08754                         | 0.02086<br>-0.38513<br>-0.66019<br>0.09479<br>0.00620<br>0.34280                         | -0.04405<br>-0.35736<br>-0.49521<br>0.07315<br>0.05739<br>0.33131                         | 0.03486<br>-0.49010<br>-0.73533<br>0.15325<br>0.00433<br>0.41235                         |

RUN NO. 84A 16M 11-06-62 1246-1401 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| HUNDAL   | IZEU CUSPECIKUN   | COTARTANCE        |                   |                   |                    |          |
|----------|-------------------|-------------------|-------------------|-------------------|--------------------|----------|
| M        | U.V               | U.W               | U,T               | V,W               | V.T                | W, T     |
|          | 0 57554           | 0.35343           | 0 34410           | 0 34345           | 0.37636            | 0.23124  |
|          | 0.57556<br>10E 00 | 0.35362<br>10E 00 | 0.36618<br>10E-01 | 0.36345<br>10E 00 | 10E-01             | 10E-01   |
| _        | 044044            | 2574.00           | 405174            | 073404            | 057403             | 221122   |
| 0        | 044064            | 357488            | 495174            | .073494           | .057402<br>.056966 | .331123  |
| 1        | 044533            | 324457            | 454372            | .065947           |                    | .296786  |
| 2        | 042071            | 256365            | 386423            | .052380           | .054570            | .224097  |
| 3        | 036950            | 189896            | 315951            | .041993           | .051444            | .149958  |
| 4        | 029368            | 135971            | 254224            | .036747           | .048883            | .092371  |
| 5        | 021595            | 090504            | 203774            | .033651           | .037521            | .053295  |
| 6        | 013310            | 059083            | 157016            | .027623           | .021929            | .025224  |
| 7        | 006122            | 029404            | 114734            | .015120           | .013217            | .006278  |
| 8        | • 000578          | 005990            | 074893            | .003323           | .009993            | 005447   |
| 9        | .009914           | .012909           | 039555            | 009047            | .006479            | 018151   |
| 10       | .017823           | .026454           | 009270            | 018246            | 001552             | 030045   |
| 11       | .020530           | .039272           | .013685           | 017394            | 008377             | 039849   |
| 12       | .020023           | .059001           | .039741           | 013118            | 008621             | 046302   |
| 13       | .023354           | .073850           | .062642           | 014268            | 009948             | 053010   |
| 14       | .026127           | .078863           | .080624           | 019429            | 012132             | 059301   |
| 15       | .031674           | .079581           | .101537           | 021076            | 021862             | 067736   |
| 16       | .033850           | .074730           | .117354           | 019182            | 033489             | 065277   |
| 17       | .031156           | .075282           | .128418           | 011725            | 043207             | 058816   |
| 18       | .023684           | .076761           | .136795           | 001189            | 047341             | 054456   |
| 19       | .013490           | .0/6087           | .137998           | .005179           | 049134             | 054870   |
| 17       | .013470           | •010007           | •131770           | 1003117           | - 1047134          | *034010  |
| 20       | .008696           | .078695           | .135943           | .007681           | 049352             | 055405   |
| 21       | .004128           | .081668           | .132357           | .005603           | 047247             | 053976   |
| 22       | .002973           | .084520           | .131709           | .004275           | 041834             | 044214   |
| 23       | .004570           | .088869           | .130061           | .006241           | 034520             | 043464   |
| 24       | .005501           | .087807           | .128132           | .008589           | 027927             | 049257   |
| 25       | • 009022          | .083228           | .119808           | .006162           | 017965             | 048168   |
| 26       | .009826           | .077559           | .104812           | .006550           | 008175             | 045874   |
| 27       | .008123           | .065705           | .088929           | .002109           | .003271            | 041970   |
| 28       | .003828           | .060366           | .075644           | 006784            | .012220            | 040179   |
| 29       | .000113           | .056171           | .060195           | 020214            | .012064            | 039042   |
| 30       | .002962           | .044559           | -041043           | 030266            | .006410            | 032250   |
|          |                   |                   |                   | 032149            | .003911            | 020991   |
| 31       | .009613           | .032562           | -019717           |                   |                    |          |
| 32       | .017115           | •020292           | .007213           | 026039            | .005938            | 011215   |
| 33       | .023182           | .008302           | 002980            | 016786            | .014344            | 008454   |
| 34       | .025294           | .001614           | 012259            | 012179            | .025565            | 011508   |
| 35       | .025573           | 006172            | 018325            | 009056            | .031625            | 006411   |
| 36       | . 026655          | 015985            | 016447            | 011115            | .027357            | .006200  |
| 37       | .032237           | 025006            | 014746            | 018159            | .017549            | .014731  |
| 38       | .033329           | 033353            | 016173            | 028355            | .010248            | .017919  |
| 39       | .031248           | 041818            | 012900            | 034895            | .005546            | .015111  |
| 40       | .028480           | 048333            | 008492            | 034943            | 000840             | .008822  |
| 41       | .024248           | 046960            | 001620            | 031771            | 005658             | .005648  |
| 42       | .021356           | 037077            | .002047           | 027485            | 009719             | .008650  |
| 43       | .015290           | 025967            | .000605           | 024324            | 016561             | .008364  |
| 44       | .014372           | 020322            | .001975           | 019414            | 022330             | .003892  |
| 45       | • 016915          | 019203            | .004516           | 020706            | 020739             | .005872  |
| 46       | .019197           | 015299            | .011373           | 034936            | 017474             | .011233  |
| 40<br>47 | .015618           | 015299            | .022704           | 048723            | 014351             | .015899  |
|          |                   |                   | .030500           |                   |                    |          |
| 48       | .012116           | 004642            |                   | 051573            | 016752             | .010791  |
| 49       | .011580           | 003819            | .033625           | 046792            | 016463             | .003238  |
| 50       | .013236           | 008473            | .037556           | 035256            | 016750             | 007034   |
| 51       | .013588           | 011767            | .038874           | 026371            | 023603             | 010608   |
| 52       | .011637           | 008744            | .041638           | 024096            | 035217             | 011863   |
| 53       | .002927           | .002757           | .047894           | 024337            | 043967             | 012479   |
| 54       | 007975            | .016630           | .051665           | 017448            | 046311             | 010912   |
| 55       | 019560            | .029806           | .050624           | 003254            | 045127             | 013664   |
| 56       | 027438            | .038648           | .047271           | .014759           | 040220             | 016331   |
| 57       | 037649            | .039826           | .035994           | .030779           | 030611             | ~.018509 |
| 58       | 048743            | .036231           | .023263           | .042840           | 015125             | 020755   |
| 59       | 060998            | .034743           | .013259           | .049096           | 002610             | 014482   |
| 60       | 073382            | .033469           | .009966           | .051006           | .005508            | 006468   |

RUN NC. 84A 16M 11-06-62 1246-1401 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| NUKE     | ALIZED WONDKATORE                       | COANTANCE          |                    |                    |                    |                    |
|----------|---|--------------------|--------------------|--------------------|--------------------|--------------------|
| М        | U,V                                     | U,W                | U, T               | V,W                | V, T               | W.T                |
|          |   |                    |                    |                    |                    |                    |
|          | 0.57556                                 | 0.35362            | 0.36618            | 0.36345            | 0.37636            | 0.23124            |
|          | 10E 00                                  | 10E 00             | 10E-01             | 10E 00             | 10E-01             | 10E-01             |
| 1        | 001906                                  | 068609             | 052783             | .012573            | 003494             | .002118            |
| ž        | .003750                                 | 099975             | 087236             | .019837            | 006368             | .010918            |
| 3        | .008959                                 | 102663             | 107309             | .027956            | 007595             | .019693            |
| 4        | .016602                                 | 101963             | 113065             | .028193            | 005384             | .020598            |
| 5        | .020493                                 | 103520             | 114833             | .026782            | 003581             | .018228            |
|          |   |                    |                    |                    |                    |                    |
| 6        | .024697                                 | 109301             | 116870             | .029250            | 005608             | .011039            |
| 7        | .029996                                 | 107981             | 119138             | .034754            | 008393             | .001788            |
| 8        | .037913<br>.044967                      | 106687             | 122783<br>122580   | • 035386           | 010798             | 004645             |
| 10       | • 043289                                | 103163<br>095119   | 115052             | .026008<br>.016461 | 013760<br>019660   | 010218<br>009283   |
| •        | *********                               | ••/>••/            | ****               | *010+01            | 1017000            | •00,203            |
| 11       | .034552                                 | 083553             | 100324             | .005678            | 018924             | 004511             |
| 12       | .023282                                 | 069574             | 087344             | .001750            | 014182             | .002187            |
| 13       | .013644                                 | 054191             | 079748             | .003356            | 009689             | .013715            |
| 14       | .008206                                 | 040716             | 071891             | 000347             | 010391             | .021901            |
| 15       | .007472                                 | 030072             | 061136             | 003532             | 012014             | .021808            |
| 16       | .007409                                 | 025085             | 048317             | 005626             | 009354             | .021035            |
| 17       | .002323                                 | 016510             | 040512             | 002909             | 006813             | .024162            |
| 18       | 011086                                  | 007022             | 032139             | 001496             | 007591             | .022105            |
| 19       | 022225                                  | .003144            | 020782             | 006033             | 009632             | .019291            |
| 20       | 031049                                  | .007906            | 007065             | 009485             | 010307             | .012456            |
|          |   |                    |                    |                    |                    |                    |
| 21       | 036977                                  | .014995            | .002783            | 003878             | 012477             | .011231            |
| 22       | 039267                                  | .024594            | .007764            | .000399            | 011844             | .011018            |
| 23       | 039379                                  | .029638            | .014705            | .001399            | 009257             | .008703            |
| 24<br>25 | 041838<br>042690                        | .029591<br>.028697 | -015897<br>-016619 | 001079<br>002578   | 007027<br>000368   | .009979<br>.015189 |
| 23       | 042040                                  | . 02.00 71         | .010017            |                    | 000368             | .015109            |
| 26       | 042030                                  | .026006            | .018449            | 005455             | .006186            | .020843            |
| 27       | 040644                                  | .023690            | .023947            | 007050             | .009282            | .018955            |
| 28       | 039245                                  | .028383            | .027185            | 006935             | .016265            | .015636            |
| 29       | 038746                                  | .031254            | .026299            | 003320             | .025445            | .008245            |
| 30       | 033412                                  | .036513            | .022729            | .009785            | .033661            | .004753            |
| 31       | 022867                                  | .041636            | .018463            | .019766            | .041508            | .000762            |
| 32       | 014208                                  | .045856            | .014530            | .022457            | .043275            | 002368             |
| 33       | 007308                                  | .046984            | .009966            | .021101            | .040536            | 004966             |
| 34       | 005252                                  | .046985            | .005678            | .017122            | .040579            | 004700             |
| 35       | 006100                                  | .052232            | .003205            | .011940            | .042551            | 003102             |
| 24       | - 004734                                | .056072            | 001409             | .008987            | .040331            | 002959             |
| 36<br>37 | 006736<br>006803                        | .047546            | .001408<br>000133  | .002988            | .031626            | 002527             |
| 38       | 006652                                  | .024305            | .000115            | 001703             | .019439            | 004894             |
| 39       | 005976                                  | 003899             | 003311             | 014484             | .008281            | 004899             |
| 40       | 003468                                  | 022941             | 008613             | 028352             | 001999             | 005410             |
|          |   |                    |                    |                    |                    |                    |
| 41       | 002730                                  | 027028             | 015458             | 027847             | 009353             | 008749             |
| 42       | .004773                                 | 019100             | 021017             | 023087             | 006803             | 012653             |
| 43       | .017095<br>.026509                      | 011737<br>012882   | 025213<br>026897   | 013467<br>005549   | .003199<br>.009508 | 007611<br>.003551  |
| 45       | .029396                                 | 012961             | 027074             | 004547             | .012945            | .012057            |
| ••       | *************************************** |                    |                    |                    |                    |                    |
| 46       | .031891                                 | 017060             | 023567             | 005334             | .011961            | .012824            |
| 47       | .039250                                 | 023725             | 022770             | 004675             | .011804            | .010820            |
| 48       | .048467                                 | 025791             | 022350             | 006711             | .011361            | .010841            |
| 49       | .053948                                 | 023985             | 019569             | 005830             | .010869            | .011065            |
| 50       | .053466                                 | 017140             | 019949             | 004473             | .010412            | .013341            |
| 51       | .050055                                 | 015524             | 024870             | 010191             | .009848            | .013997            |
| 52       | .047198                                 | 014561             | 028954             | 021773             | .004971            | .018709            |
| 53       | .042392                                 | 014080             | 029771             | 029947             | 000243             | .030735            |
| 54       | .036146                                 | 016944             | 024292             | 029217             | 006916             | .033126            |
| 55       | .030405                                 | 016033             | 016668             | 018877             | 014781             | .020107            |
|          | 03/035                                  | - 013338           | - 000077           | - 012514           | - 035043           | 001001             |
| 56       | .024925                                 | 012228<br>007136   | 008877<br>.001676  | 012514             | 025947             | .004906<br>004306  |
| 57<br>58 | .011976<br>002828                       | 007138             | .017408            | 010333<br>008643   | 043166<br>055742   | 004306<br>009118   |
| 59       | 018571                                  | .008856            | .030976            | 003575             | 061430             | 015056             |
| 60       | 031694                                  | .015423            | .041335            | .002802            | 063191             | 018986             |
|          |   |                    |                    |                    |                    |                    |

RUN NO. 84A 16M 11-06-62 1246-1401 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| M  | U                 | v                  | W                  | T                  |
|----|-------------------|--------------------|--------------------|--------------------|
|    | 0.55999<br>10E 00 | 0.59156<br>10E 00  | 0.22330<br>10E 00  | 0.23945<br>10E-02  |
| 0  | 1.000000          | 1.000000           | 1.000000           | 1 000000           |
| 1  | .860647           | .860110            | •702079            | 1.000000           |
| 2  | .679610           | .670069            |                    | -846998            |
| 3  | .530484           | .520914            | .385339            | • 645615           |
| 4  | -414499           | •403519            | .190862<br>.091340 | •488133<br>•364988 |
| 5  | . 323335          | .311937            | 047100             |                    |
| 6  | -241744           | •232031            | .047188<br>.008686 | . 263191           |
| 7  | .163838           | • 160631           |                    | 184330             |
| 8  | .092800           | -103473            | 022831             | -120676            |
| 9  | .025654           | .051296            | 047624<br>062399   | •074060<br>•038271 |
| 10 | 035678            | -001617            | 073033             | -005385            |
| 11 | 086727            | 043117             | 096900             | 021006             |
| 12 | 130321            | 083523             | 121504             | 045131             |
| 13 | 166761            | 119380             | 121685             | 070482             |
| 14 | 194210            | 149929             | 118121             | 097852             |
| 15 | 221251            | 177676             | 114890             | 131799             |
| 16 | 239759            | 201805             | 117142             | 159068             |
| 17 | 247921            | 217889             | 111539             | 184178             |
| 18 | 252747            | 231041             | 101607             | 202828             |
| 19 | 253301            | 240671             | 106151             | 210469             |
| 20 | 252114            | 251444             | 110859             | - 210454           |
| 21 | 249193            | 263068             | 116340             | 210454             |
| 22 | 248459            | 272184             | 108720             | 205817             |
| 23 | 235444            | 277063             | 099737             | 202349             |
| 24 | 216763            | 279301             | 095579             | 204876<br>204941   |
| 25 | 199479            | 281775             | 079693             |                    |
| 26 | 183662            | 277014             | 063296             | 198395             |
| 27 | 170610            | 262868             | 073266             | 191671             |
| 28 | 152364            | 238501             |                    | 180278             |
| 29 | 127229            | 199923             | 086703<br>085106   | 158360<br>130668   |
| 30 | 088250            | 153770             | 079284             | 207121             |
| 31 | 048875            | 102496             | 062306             | 097481             |
| 32 | 017993            | 054689             | 049111             | 066211             |
| 33 | .008879           | 019036             | 040826             | 045262             |
| 34 | .030200           | .004893            | 028429             | 033638<br>025443   |
| 35 | .047943           | .025984            |                    |                    |
| 36 | .065588           | .044777            | 001596             | 025554             |
| 37 | .081685           |                    | .023227            | 031682             |
| 38 | .098027           | •056568<br>•062588 | .032829            | 032113             |
| 39 | .103155           | .061366            | -034334            | 030779             |
| 40 |                   | .001366            | .022836            | 032977             |
| 40 | .093710           | .055897            | .017610            | 026706             |
| 41 | .077820           | .045463            | .016018            | 021002             |
| 42 | .063847           | .034953            | .019763            | 016136             |
| 43 | •053889           | .025876            | .017168            | 009893             |
| 44 | • 039592          | •020111            | .030612            | 009250             |
| 45 | .026917           | .010637            | .042395            | .000386            |
| 46 | -010818           | .005450            | .052683            | .010098            |
| 47 | 003760            | -000232            | .044587            |                    |
| 48 | 013468            | 009472             | .018119            | -010874            |
| 49 | 022346            | 019214             | .006183            | .011155<br>.012536 |
| 50 | 035909            | 021551             | -015306            | .011995            |
| 51 | 045216            | 024375             | .031077            | .002769            |
| 52 | 058757            | 025239             | .043637            | 009592             |
| 53 | 071003            | 032997             | .029557            | 018215             |
| 54 | 081362            | 040295             | .014597            | 016923             |
| 55 | 089447            | 039289             | 000526             | 013159             |
| 56 | 096618            | 040237             | 024403             |                    |
| 57 | 102490            | 042261             | 029612             | 005841             |
| 58 | 101545            | 036536             | 032834             | 001051             |
| 59 | 097215            | 029014             | 026477             | .005751<br>.013114 |
| 60 | 086625            | 024083             | 011682             | .019060            |
|    |                   |                    |                    |                    |

RUN NC. 84A 16M 11-06-62 1246-1401 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| CO | e | 0 | æ | r | Ŧ | 64 |    |
|----|---|---|---|---|---|----|----|
| Ųυ | J | • | C | ı | ٠ | r. | /п |

| K         | U,V         | U.W     | U,T     | V+W      | V, T     | W <sub>2</sub> T |
|-----------|-------------|---------|---------|----------|----------|------------------|
|           | 10E-02      | 10E-01  | 10E-02  | 106-02   | 10E-03   | 10E-02           |
| 0         | .146120     | 013306  | 049315  | .038224  | .010040  | .008540          |
| ĭ         | 263973      | 125850  | 302544  | .545476  | .286278  | .070630          |
| ž         | 552864      | 186848  | 326714  | .402079  | . 458954 | .092872          |
| 3         | 491928      | 227475  | 361948  | .261999  | . 739886 | .111502          |
| 4         | 635393      | 155465  | 249586  | .381808  | .589927  | .088393          |
| 5         | 591647      | 099880  | 121097  | .414854  | .091516  | .066638          |
| 6         | 244643      | 094783  | 083589  | .316420  | 067257   | .058585          |
| 7-8       | 027687      | 064315  | 067704  | .045000  | .071085  | .041117          |
| 9-11      | 019449      | 034619  | 039078  | .024103  | .062959  | .029262          |
| 12-15     | - 024706    | 025481  | 019444  | .001439  | 038551   | .018284          |
| 16-20     | 027064      | 009240  | 012798  | .055284  | 012647   | .008525          |
| 21-27     | .018907     | 006017  | 005947  | .014040  | .007619  | .003328          |
| 28-36     | .001198     | 002185  | 002570  | .003415  | .003623  | .000858          |
| 37-47     | .001072     | 000601  | 001544  | .004729  | 005365   | .000382          |
| 48-60     | • 002066    | 000110  | 001232  | 000001   | •001493  | .000173          |
| QUADRATUE | RE SPECTRUM |         |         |          |          |                  |
| K         | U,V         | U.W     | U.T     | V, W     | V,T      | W, T             |
| •         | 0,1         | 0,      | 0,1     | ***      | ***      |                  |
|           | 10E-0?      | 10E-01  | 10E-02  | 10E-02   | 10E-03   | 10E-03           |
| 1         | 464503      | 035401  | 105903  | .131534  | .103124  | .210450          |
| 2         | .092941     | 086975  | 118123  | .161110  | 257894   | .134942          |
| 3         | . 923631    | 137204  | 152432  | .174141  | 311133   | .040345          |
| 4         | . 799345    | 105020  | 120725  | .290490  | .020739  | 055424           |
| 5         | -266001     | 065036  | 065894  | .320172  | .114681  | 017531           |
| 6         | 078395      | 054434  | 038965  | .161269  | 084010   | .027152          |
| 7-8       | 102330      | 022167  | 024573  | .130482  | .002490  | . 05 /424        |
| 9-11      | 099894      | 016146  | 014281  | 005118   | .018236  | .100180          |
| 12-15     | 025316      | 014360  | 010253  | 007609   | 032849   | 009480           |
| 16-20     | .006365     | 010263  | 007353  | .043282  | 012047   | 014388           |
| 21-27     | 028808      | 006253  | 000582  | 010679   | 004186   | 010743           |
| 28-36     | 003769      | 002072  | 000776  | .002470  | .008612  | 003603           |
| 37-47     | 004667      | 000702  | 000517  | .004626  | 000596   | 002237           |
| 48-60     | 006739      | .000458 | 000287  | -004987  | 000020   | .000978          |
| POWER SPI | ECTRUM      |         |         |          |          |                  |
| K         | U           | ٧       | W       | T        |          |                  |
| ,,        | J           | •       |         | ·        |          |                  |
|           | 10E 00      | 10E 00  | 108-01  | 10E-03   |          |                  |
| 0         | .009829     | .008300 | .008536 | .046486  |          |                  |
| 1         | .066738     | .076219 | .110323 | .326310  |          |                  |
| 2         | .085120     | .099010 | .171039 | . 360404 |          |                  |
| 3         | .103650     | .107668 | .210905 | .367524  |          |                  |
| 4         | .072070     | .064855 | .171745 | -249820  |          |                  |
| 5         | .038825     | .031935 | .143606 | .148741  |          |                  |
| 6         | .031089     | .031964 | .134509 | .117642  |          |                  |
| 7-8       | .020838     | .025531 | .105165 | .111993  |          |                  |
| 9-11      | .012966     | .014938 | .084216 | .077465  |          |                  |
| 12-15     | .008904     | .009842 | .068895 | .039511  |          |                  |
| 16-20     | .005933     | .006099 | .047739 | .026102  |          |                  |
| 21-27     | .003334     | .003812 | .033897 | .016096  |          |                  |
| 28-36     | .001920     | .002093 | .017780 | .009969  |          |                  |
| 37-47     | .001266     | .001361 | .012589 | .005973  |          |                  |
| 48-6C     | .000842     | .000743 | .008617 | .003637  |          |                  |

RUN NO. 84A 16M 11-06-62 1246-1401 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

| M              | U.V              | U.W              | U,T              | V.W                | V.T                | ₩øT   |
|----------------|------------------|------------------|------------------|--------------------|--------------------|---|
|                | 0.74800          | 0.29605          | 0.57813          | 0.27995            | 0.54668            | 0.21637                                       |
|                | 10E 00           | 10E 00           | 10E-01           | 10E 00             | 10E-01             | 10E-01  |
|                | .02.00           |                  |                  | 101 00             |                    |   |
| 0              | .034853          | -:489922         | 735552           | .153162            | .004335            | .412308                                       |
| 1              | .079348          | 236359           | 531947           | .060873            | 029245             | .209974                                       |
| 2              | .068379          | 116384           | 357202           | .039471            | 049265             | .140266                                       |
| 3              | .029380          | 047674           | 253531           | .020434            | 033537             | .072892                                       |
| 4              | .010181          | 054389           | 126710           | 012933             | 023350             | .042840                                       |
|                |                  |                  |                  |                    |                    |   |
| 5              | 044389           | .020590          | .016013          | .000806            | 013747             | 020344  |
| 6              | 110426           | .077441          | .099271          | .052714            | .030266            | 052177  |
| 7              | 103313           | . 069099         | .165018          | .051134            | .067495            | 065280  |
| 8              | 071156           | . 126164         | .237086          | 039660             | .075266            | 095054  |
| 9              | 046572           | .090051          | .232703          | 065442             | .086410            | 095886  |
|                |                  |                  |                  |                    | 043404             | 131/00  |
| 10             | 027011           | . 102294         | .269042          | 027091             | .063426            | 131499  |
| 11             | .023071          | - 163715         | .298070          | 045945             | .031452            | 185553  |
| 12             | .039010          | .101888          | .246833          | 023830             | .010445            | 136622  |
| 13             | .044340          | . 074099         | .158213          | 044058             | 042580             | 061598  |
| 14             | .056062          | 002831           | .090246          | 052654             | 083136             | 014458  |
| 15             | .028982          | .007847          | .088294          | 038573             | 049450             | 047456  |
| 16             | 003692           | 053339           | .034441          | 042937             | 017178             | .021940                                       |
| 17             | .013386          | 020827           | .020660          | 019914             | 026938             | .001900                                       |
| 18             | 010096           | .008234          | .005368          | 004439             | 010565             | 019097  |
| 19             | 006418           | .027792          | 010005           | .017266            | .005879            | 003579  |
| • /            | .000410          | . 02 / / / 2     | *010003          | .011200            |                    | ******  |
| 20             | 025517           | .002651          | 050742           | .041705            | .010756            | .028140                                       |
| 21             | 019459           | .034379          | 077577           | .037492            | .015313            | .037965                                       |
| 22             | .004635          | .040480          | 075968           | .016279            | 000317             | .015781                                       |
| 23             | .038203          | .042881          | 083917           | 025727             | 005415             | .026833                                       |
| 24             | .040717          | .019572          | 060729           | 030278             | .002988            | .026428                                       |
|                |                  |                  |                  |                    |                    |   |
| 25             | .061673          | .024216          | 052085           | 004315             | 013725             | .004815                                       |
| 26             | .083854          | .027943          | 034584           | 013359             | 026579             | .019837                                       |
| 27             | .101671          | 040656           | 072827           | 007355             | 039824             | .068854                                       |
| 28             | .093562          | 063875           | 086884           | 000126             | 025297             | .050260                                       |
| 29             | .051259          | 049961           | 053275           | 052907             | 023112             | .059609                                       |
|                |                  |                  |                  |                    |                    |   |
| 30             | .032311          | 036045           | 018612           | 052996             | 048125             | .038024                                       |
|                |                  |                  |                  |                    |                    |   |
| COSPECTA       | 4184             |                  |                  |                    |                    |   |
| COSPECIA       | Un               |                  |                  |                    |                    |   |
| K              | U <b>, V</b>     | U, W             | U,T              | V,W                | V,T                | W.T   |
|                | 0,11             | 0, "             | 0,11             | *,                 | ***                | <b>**</b> ** ** ** ** ** ** ** ** ** ** ** ** |
|                |                  |                  |                  |                    |                    |   |
|                | 10E-01           | 10E-01           | 10E-02           | 10E-02             | 10E-02             | 10E-02  |
|                |                  |                  |                  |                    |                    |   |
| 0              | 005620           | 005982           | 051960           | .035985            | .006545            | .002187                                       |
| 1              | 036546           | 114460           | 537894           | .496245            | .023612            | .072227                                       |
| 2              | .033335          | 165844           | 804693           | .651488            | 024937             | .128730                                       |
| 3              | .142060          | 212591           | 945159           | . 580469           | 109862             | .158906                                       |
| 4              | . 252006         | 176813           | 616348           | .133596            | 141920             | .105996                                       |
| _              |                  |                  | 2 2 1000         | 2211100            |                    | 245   |
| 5              | . 225984         | 082165           | 294883           | 006348             | 043863             | .045099                                       |
| 6              | .059563          | 043265           | 150537           | .152298            | .072649            | .023852                                       |
| 7              | 036158           | 066185           | 126608           | .133423            | .080724            | .036294                                       |
| 8              | 062253           | 070429           | 144209           | .231411            | .030194            | .049081                                       |
| 9-11           | 044853           | 038414           | 062747           | .375393            | .010958            | .017617                                       |
| 12.14          | •001092          | - 057437         | - 000345         | - 003130           | 001303             | 024.004                                       |
| 12-14          |                  | 057437<br>034053 | 080345           | 093129             | .001392            | .026884                                       |
| 15-21<br>22-30 | 023329<br>017587 | 032323           | 061412<br>031896 | .144680<br>.127756 | .019415<br>.002212 | .017331<br>.022472                            |
| 26-36          | 011301           | 032323           | 031670           | · 14/170           | .002212            | •022712                                       |

RUN NO. 84A 16M 11-06-62 1246-1401 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

| M          | ~ U,V            | U.W              | U, T             | V,W              | V, T              | W, T               |
|------------|------------------|------------------|------------------|------------------|-------------------|--------------------|
|            | 0.74800          | 0.29605          | 0.57813          | 0.27995          | 0.54668           | 0.21637            |
|            | 10E 00           | 10E 00           | 108-01           | 10E 00           | 10E-01            | 10E-01             |
| 1          | .028712          | 064141           | <b></b> 090783   | .054280          | .011855           | .039880            |
| 1 2        | .011753          | .053073          | 074717           | 015944           | .003915           | .116326            |
| 3          | .025741          | .084608          | 083598           | .014602          | .038602           | .129558            |
| 4          | .081843          | .089231          | 088831           | .047014          | .051941           | .146043            |
| 5          | .125957          | .115236          | 077400           | .040753          | .047737           | .169108            |
| •          |                  | ,.,,             | ************     | .040173          |                   | ***********        |
| 6          | .097979          | .119984          | 035945           | .057197          | .034227           | .127456            |
| 7          | .088549          | .081350          | 040434           | .070985          | .037349           | .116786            |
| 8          | .119475          | .089181          | 039843           | .075911          | .108402           | .100560            |
| 9          | .111723          | .073116          | 024005           | .058347          | .133036           | .086846            |
| 10         | .035449          | .044733          | 026281           | .024345          | .078827           | .054956            |
| 11         | 024530           | 007776           | 031577           | .022280          | .042024           | .048043            |
| 12         | 068739           | .000361          | 006797           | 025777           | 032971            | 005270             |
| 13         | 094471           | 006838           | 014510           | 007942           | 064115            | 023095             |
| 14         | 083702           | 081172           | 059347           | 018904           | 048148            | 090997             |
| 15         | 067178           | 077962           | 065307           | 019041           | 053014            | 065981             |
| 16         | 071216           | 080756           | 063312           | 016619           | 093901            | 083460             |
| 17         | 056948           | 103540           | 076468           | .015991          | 132569            | 072778             |
| 18         | 052778           | 045288           | 059058           | 046319           | 131163            | 055441             |
| 19         | 064895           | .005539          | 011016           | 060377           | 120959            | 084143             |
| 20         | 058408           | .015587          | .041197          | 069715           | 088232            | 066173             |
| 21         | 029108           | .030887          | .023332          | 020009           | 049937            | 001296             |
| 22         | 015722           | .023971          | .031344          | 002833           | 022201            | .004388            |
| 23         | .021377          | .025738          | .066103          | .006081          | .003358           | .010012            |
| 24         | .056250          | 028436           | .064976          | .006758          | .023844           | 065806             |
| 25         | .053458          | 011858           | .054692          | 008034           | .041332           | 046327             |
| 26         | .035367          | 028029           | .048593          | 020831           | .018435           | 023814             |
| 27         | 015587           | 018549           | .035891          | 020368           | 017972            | 018762             |
| 28         | 053231           | 048646           | .017958          | 074386           | 051509            | .033485            |
| 29         | 042894           | 019724           | .011353          | 046981           | 042741            | .010445            |
| 30         | 020800           | 017702           | 024791           | 032836           | 006730            | .015538            |
| QUADRATURE | SPECTRUM         |                  |                  |                  |                   |                    |
|            |                  |                  |                  |                  |                   |                    |
| K          | U.V              | U, W             | U, T             | V, W             | V, T              | W.T                |
|            | 10E-01           | 10E-01           | 10E-02           | 106-02           | 10E-02            | 10E-02             |
| i          | .066647          | .061465          | 233970           | .423314          | .011675           | .070569            |
| ž          | .264832          | .108629          | 151066           | .657590          | .183677           | 121721             |
| 3          | .347394          | .130239          | 080443           | .552811          | .175445           | .129392            |
| 4          | .115349          | .050143          | 124620           | .094851          | 040690            | .059813            |
| 5          | 082240           | 022203           | 128989           | 130424           | 087047            | .013783            |
|            | - 122427         | - 009930         | - 044220         | - 217704         | - 017130          | 015401             |
| 6<br>7     | 123436<br>069514 | 008839<br>003629 | 046230<br>036881 | 217706<br>189197 | 017130<br>.013061 | .015601<br>.015610 |
| á          | .027940          | 026911           | 059961           | .085804          | .054968           | .006195            |
| 9-11       | 019843           | 017623           | 018117           | .059879          | 014914            | 004392             |
| 12-14      | .008617          | 021674           | 020338           | .039354          | 015160            | .000081            |
|            |                  |                  |                  | ,,,,             |                   |                    |
| 15-21      | .029377          | 024194           | 026140           | .183547          | .007314           | 003292             |
| 22-30      | .007916          | 011780           | 013599           | .112537          | .012111           | 002314             |
|            |                  |                  |                  |                  |                   |                    |

RUN NO. 84A 16M 11-06-62 1246-1401 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

| M              | U        | V                                       | W                  | T                  |
|----------------|----------|---|--------------------|--------------------|
|                | 0.79104  | 0.70730                                 | 0.11080            | 0.42253            |
|                | 10E 00   | 10E 00                                  | 10E 00             | 10E-02             |
| 0              | 1.000000 | 1.000000                                | 1 000000           |                    |
| 1              | .588528  | .578417                                 | 1.000000           | 1.000000           |
| 2              | .338054  | .261067                                 | .203439<br>.120410 | .702201            |
| 3              | •221213  | •146576                                 | 019633             | .478645            |
| 4              | .097272  | .065998                                 |                    | .330351            |
|                | .071212  | • 003998                                | -004401            | -166831            |
| 5              | 093986   | 038774                                  | .000464            | .036990            |
| 6              | 182864   | 084962                                  | 054747             | 070943             |
| 7<br>8         | 202654   | 090552                                  | 076096             | 192963             |
| 9              | 246187   | 134905                                  | 142683             | 277839             |
| ,              | 224839   | 193024                                  | 171355             | 299361             |
| 10             | 241875   | 215111                                  | 126444             | 318007             |
| 11             | 268391   | 226055                                  | 201339             | 357182             |
| 12             | 210488   | 175179                                  | 101839             | 349577             |
| 13             | 116936   | 173203                                  | 077078             | 293989             |
| 14             | 021743   | 219120                                  | .002162            | 236060             |
| 15             | 044224   | 163749                                  | 068412             | 197457             |
| 16             | .023076  | 085313                                  | .041069            | 096381             |
| 17             | .024312  | 092389                                  | .033210            | 065233             |
| 18             | .012012  | 048446                                  | 053842             | 047428             |
| 19             | 024885   | 007130                                  | 024558             | 008206             |
|                |          |   |                    | .008208            |
| 20             | .031248  | .054466                                 | 013478             | .064311            |
| 21             | .025335  | -100817                                 | .009900            | .159815            |
| 22             | 038589   | .043654                                 | .018977            | .172261            |
| 23             | 029168   | .009740                                 | 016320             | .167585            |
| 24             | 020083   | .036022                                 | 024757             | .138167            |
| 25             | 039705   | .060977                                 | 003914             | .126746            |
| 26             | 050431   | .044078                                 | .064932            | .138424            |
| 27             | 007485   | .045331                                 | .086922            | .180088            |
| 28             | .052773  | .109337                                 | .021382            | .148096            |
| 29             | .038117  | .066845                                 | .031957            | .092223            |
| 30             | .015652  | .001335                                 | 023598             | 014493             |
|                |          | *************************************** | *023370            | .014682            |
| POWER SPE      | CTRUM    |   |                    |                    |
|                |          |   |                    |                    |
| K              | U        | V                                       | ₩                  | Ť                  |
|                | 10E 00   | 10E 00                                  | 105-01             | 105.00             |
|                |          | 101 00                                  | 10E-01             | 10E-03             |
| 0              | .008359  | .007122                                 | .002275            | .057492            |
| 1              | .077466  | .074979                                 | .051066            | .578035            |
| 2              | .104476  | -100020                                 | -080674            | . 845854           |
| 3              | .133317  | ·102965                                 | .101303            | .900278            |
| 4              | .108838  | .063890                                 | .082111            | .499318            |
| 5              | .061303  | .044259                                 | .047241            | 254122             |
| 6              | .037090  | .041828                                 | .030672            | .254122            |
| 7              | .033261  | .035234                                 | .039649            | .171834<br>.138111 |
| 8              | .030521  | .031394                                 | .050909            | .130380            |
| 9-11           | .014495  | .026041                                 | .047521            | .086834            |
|                |          |   |                    | .000074            |
| 12-14          | .020610  | -017568                                 | .041295            | .076577            |
| 15-21<br>22-30 | .017546  | .016244                                 | .032494            | .054715            |
| 22-30          | .011805  | .009597                                 | .054941            | .045186            |

RUN NO. 84A 40M 11-06-62 1246-1401 EST

# GROSS STATISTICS

| 10 AS SC<br>NEAR NEUTRAL<br>LAND | WIND SIGMA<br>SIGMA     | A 11.3 DEG                     | WIND DIRE<br>SOLAR RAD<br>NET RADIA |                                    |
|----------------------------------|-------------------------|--------------------------------|-------------------------------------|------------------------------------|
|                                  | WITH NO<br>RUNNING MEAN | WITH 301 POINT<br>RUNNING MEAN | WITH 61 POINT<br>RUNNING MEAN       | 301 PT RUN MEAN<br>10 PT BLOCK AVG |
| VARIANCES                        |                         |                                |                                     |                                    |
| U                                | 0.17932E 01             | 0.11593E 01                    | 0.52852E 00                         | 0.90827E 00                        |
| ٧                                | 0.13750E 01             | 0.72478E 00                    | 0.43415E-00                         | 0.49611E-00                        |
| W                                | 0.42859E-00             | 0.39752E-00                    | 0.33620E-00                         | 0.20452E-00                        |
| T                                | 0.54719E-01             | 0.62205E-02                    | 0.25713E-02                         | 0.51981E-02                        |
| E                                | 0.17984E 01             | 0.11408E 01                    | 0.64950E 00                         |                                    |
| GUSTINESS RATIO                  | s<br>-                  |                                |                                     |                                    |
| U                                | 0.22735                 | 0.18280                        | 0.12344                             | 0.16181                            |
| v                                | 0.19909                 | 0.14454                        | 0.11187                             | 0.11958                            |
| ŭ                                | 0.11115                 | 0.10704                        | 0.09844                             | 0.07678                            |
| COVARIANCES                      |                         |                                |                                     |                                    |
| U•V                              | -0.25076E-01            | 0.90105E-01                    | 0.82977E-02                         | 0.85257E-01                        |
| U.W                              | -0.38478E-00            | -0.27787E-00                   | -0.14704E-00                        | -0.22906E-00                       |
| U.T                              | -0.11635E-00            | -0.58360E-01                   | -0.18050E-01                        | -0.52098E-01                       |
| V.W                              | -0.11087E-01            | -0.50771E-01                   | -0.25406E-01                        | -0.38436E-01                       |
| V. T                             | 0.91114E-01             | -0.38741E-02                   | -0.42479E-03                        | -0.40080E-02                       |
| W.T                              | 0.18750E-01             | 0.19956E-01                    | 0.11433E-01                         | 0.15023E-01                        |
| WE                               | 0.10108E-00             | 0.79493E-01                    | 0.39518E-01                         |                                    |
| NORMALIZED COVA                  | RIANCES                 |                                |                                     |                                    |
|                                  |                         |                                |                                     |                                    |
| U,V                              | -0.01597                | 0.09830                        | 0.01732                             | 0.12701                            |
| U.W                              | -0.43891                | -0.40933                       | -0.34879                            | -0.53146                           |
| U.T                              | -0.37142                | -0.68724                       | -0.48960                            | -0.75821                           |
| V,W                              | -0.01444                | -0.09459                       | -0.06650                            | -0.12066                           |
| V,T                              | 0.33217                 | -0.05770                       | -0.01271                            | -0.C7893                           |
| W.T                              | 0.12244                 | 0.40130                        | 0.38884                             | 0.46075                            |

RUN NO. 84A 40M 11-06-62 1246-1401 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| М  | U•V               | U• W              | U•T                                     | V.H               | V.T               | W.T                |
|----|-------------------|-------------------|---|-------------------|-------------------|--------------------|
|    | 0.47920<br>10E 00 | 0.42166<br>10E 00 | 0.36873<br>10E-01                       | 0.38203<br>10E 00 | 0.33407<br>10E-01 | 0.29396<br>10E-01  |
| 0  | .017183           | 348901            | 489507                                  | 066620            | 012480            | .388737            |
| 1  | .017856           | 336038            | 457109                                  | 056674            | 014604            | .350883            |
| 2  | .016612           | 298298            | 394380                                  | 037262            | 015573            | .285053            |
| 3  | .012917           | 249730            | 328759                                  | 019292            | 015044            | .221460            |
| 4  | .015212           | 195496            | 266939                                  | 007257            | 017783            | .167365            |
| 5  | .010974           | 146005            | 211245                                  | 004059            | 021511            | .122830            |
| 6  | .007361           | 098288            | 161067                                  | 009117            | 023284            | .082409            |
| 7  | .000162           | 050297            | 116369                                  | 015164            | 023303            | .042030            |
| 8  | 003015            | 005254            | 079553                                  | 015150            | 021702            | .006369            |
| 9  | 002947            | .034923           | 042422                                  | 012320            | 021890            | 024287             |
| 10 | .004295           | .060589           | 006657                                  | 006106            | 021573            | 048471             |
| 11 | .010135           | .074611           | .018029                                 | .002392           | 019472            | 068826             |
| 12 | -016474           | .088606           | .035705                                 | .011835           | 016374            | 085629             |
| 13 | .017064           | .099336           | .053336                                 | .014216           | 020188            | 100146             |
| 14 | .013914           | .109778           | .071253                                 | .006620           | 024931            | 105815             |
| 15 | •012233           | .122570           | .090445                                 | .000123           | 023653            | 110339             |
| 16 | .018977           | .129291           |   | 004092            | 022453            | 113083             |
|    |                   |                   | -104542                                 |                   |                   |                    |
| 17 | .022638           | .132737           | .111001                                 | 005074            | 023644            | 117907             |
| 18 | •018899           | .132089           | .118985                                 | 000900            | 018707            | 122921             |
| 19 | .016609           | .128156           | .130055                                 | .010425           | 010418            | 127045             |
| 20 | .010024           | .128458           | .143304                                 | .024350           | 005159            | 129363             |
| 21 | .003635           | .131014           | .150631                                 | .030799           | .003869           | 125742             |
| 22 | 001041            | .122772           | .154671                                 | .034153           | .009720           | 118232             |
| 23 | 007722            | .114740           | .162408                                 | .023609           | .014044           | 111639             |
| 24 | 015631            | .105387           | .162169                                 | .004682           | .021035           | 106292             |
| 25 | 021666            | .099596           | .153718                                 | 002729            | .036670           | 097985             |
| 26 | 024325            | .084097           | .144472                                 | 001246            | .049040           | 088308             |
| 27 | 025452            | .059185           | .130034                                 | .000049           | .054885           | 076254             |
| 28 | 025525            | .040513           | .118608                                 |                   |                   |                    |
| 29 | 025204            | .025892           | .105753                                 | 002772<br>.003127 | .057074           | 064479<br>050841   |
| 20 | - 027070          | 001100            | 007057                                  | 012102            | 0504.83           | - 030033           |
| 30 | 027870            | .001190           | -087857                                 | .012103           | .059682           | 030023             |
| 31 | 030890            | 023203            | .067109                                 | .013271           | .056521           | 005426             |
| 32 | 033404            | 044823            | .047693                                 | •020392           | .049204           | .022534            |
| 33 | 031625            | 061532            | .031815                                 | .023309           | .038874           | .044756            |
| 34 | 026969            | 072735            | .017768                                 | .017065           | .029337           | .055850            |
| 35 | 021951            | 080381            | 001326                                  | .011597           | .022278           | .065904            |
| 36 | 016529            | 082206            | 017919                                  | .011552           | .017537           | .074001            |
| 37 | 011801            | 080290            | 029028                                  | .015773           | .014764           | .080652            |
| 38 | 006204            | 072285            | 030310                                  | .017428           | .018720           | .081878            |
| 39 | 003600            | 066499            | 026556                                  | .010949           | .023023           | .079064            |
| 40 | 001986            | 060434            | 022605                                  | .004012           | .024132           | .075233            |
| 41 | .000892           | 052053            | 022945                                  | 006052            | .021742           | .070568            |
| 42 | .005510           | 044083            | 025926                                  | 006243            | .023765           | .066167            |
| 43 | .009479           | 025952            | 027472                                  | 004234            | .024750           |                    |
| 44 | .021708           | 007904            | 028095                                  | .000138           | .021278           | .056512<br>.039365 |
|    |                   |                   |   |                   |                   |                    |
| 45 | .030603           | .006971           | 025879                                  | .006894           | .011356           | -023110            |
| 46 | .029955           | .022205           | 024060                                  | .008979           | 001343            | .013292            |
| 47 | .028475           | .025421           | 022142                                  | .006972           | 013091            | .008815            |
| 48 | .025741           | .028024           | 018979                                  | .010421           | 018892            | .007488            |
| 49 | .024855           | .031885           | 011176                                  | .011185           | 023785            | .005071            |
| 50 | .029543           | .032394           | 008932                                  | .011594           | 026269            | .000546            |
| 51 | .031788           | .029665           | 010443                                  | .009232           | 029949            | 006292             |
| 52 | .037590           | .026036           | 011578                                  | .003509           | 033349            | 008811             |
| 53 | .043554           | .022687           | 014566                                  | .001047           | 043215            | 003553             |
| 54 | .048830           | .016581           | 015260                                  | 003665            | 055943            | .002683            |
| 55 | .043759           | .004769           | 014086                                  | 010733            | 081545            | .007278            |
| 56 | .036657           | 001018            | 011557                                  | 014198            | 061560            | .009165            |
| 57 | .027309           | .002915           | 003651                                  | 019215            | 061122            | .007383            |
| 58 | .020809           | .010612           | .006773                                 | 024395            | 054384            | 002670             |
| 59 | .016752           | .014459           | .009654                                 | 026945            | 041115            |                    |
| ,, | •010135           | • 014434          | *************************************** | 020777            | 041113            | 012054             |
| 60 | .013563           | .014056           | .006070                                 | 028945            | 028200            | 021505             |

RUN NO. 84A 40M 11-06-62 1246-1401 EST 61 ROINT RUNNING MEAN, NO BLOCK AVERAGING

| MI | U, V     | U,W     | U, T    | V.W     | V, T    | W,T     |
|----|----------|---------|---------|---------|---------|---------|
|    | 0.47920  | 0.42166 | 0.36873 | 0.30203 | 0.33407 | 0.29396 |
|    | 10E 00   | 10E 00  | 10E-01  | 10E 00  | 10E-01  | 10E-01  |
| 1  | .019404  | 023129  | 032548  | 001656  | .005943 | .006685 |
| 2  | .026394  | 037609  | 049598  | .004265 | .017484 | .016043 |
| 3  | .034051  | 046401  | 059831  | .017979 | .029758 | .021453 |
| 4  | .044537  | 053178  | 067376  | .037223 | .042925 | .020189 |
| 5  | .050328  | 054691  | 070543  | .052195 | •051713 | .017562 |
| 6  | .054676  | 051723  | 071877  | .058078 | .059112 | .018513 |
| 7  | .056461  | 050843  | 072729  | .059625 | .062125 | .019729 |
| 8  | .055902  | 053718  | 075285  | .058030 | .057825 | .015708 |
| 9  | .056878  | 054478  | 077606  | .054123 | .052986 | .007451 |
| 10 | . 059346 | 057834  | 083700  | .048558 | •052025 | 003921  |
| 11 | .067770  | 060386  | 084696  | .045087 | .046971 | 009080  |
| 12 | .077671  | 051457  | 085072  | .046577 | .043116 | 009995  |
| 13 | .078432  | 041481  | 083104  | .048515 | .039702 | 005967  |
| 14 | .077133  | 041582  | 077100  | .046938 | .042071 | 005212  |
| 15 | .075945  | 040420  | 072036  | .044454 | .046480 | 009325  |
| 16 | .072767  | 047086  | 070163  | .043718 | .050281 | 018651  |
| 17 | .063511  | 049059  | 070627  | .039341 | .048588 | 028283  |
| 18 | .054057  | 045287  | 068892  | .033075 | .045833 | 037424  |
| 19 | .043175  | 039201  | 058690  | .024332 | .047790 | 039974  |
| 20 | .037395  | 027705  | 047378  | .012349 | .052297 | 036059  |
| 21 | .027343  | 014000  | 040977  | 002329  | .053210 | 027162  |
| 22 | .018819  | .001307 | 031959  | 011021  | .046944 | 023858  |
| 23 | .006591  | .014387 | 022168  | 010621  | .038006 | 014480  |
| 24 | 000950   | .023735 | 012394  | 006291  | .030646 | 001035  |
| 25 | 008405   | .027606 | 001122  | 003521  | .023708 | .006152 |
|    |          |         |         |         |         |         |
| 26 | 015147   | .026476 | .007057 | 006729  | .014063 | .006096 |
| 27 | 027625   | .022780 | .012436 | 015139  | .004047 | .006985 |
| 28 | 039380   | .019918 | .019552 | 020529  | 005784  | .001426 |
| 29 | 047128   | .020310 | .024413 | 024812  | 016593  | 007226  |
| 30 | 056104   | .022668 | .028076 | 025499  | 024401  | 012925  |
| 31 | 060639   | .019399 | .030892 | 021899  | 026461  | 017571  |
| 32 | 061350   | .008918 | .029194 | 030716  | 027725  | 017234  |
| 33 | 060869   | 003795  | .026280 | 039858  | 032922  | 013485  |
| 34 | 059275   | 012519  | .022236 | 043492  | 040724  | 007806  |
| 35 | 051873   | 017204  | .017940 | 045704  | 051785  | 003701  |
| 36 | 042388   | 021398  | .017206 | 042849  | 057104  | .000715 |
| 37 | 031281   | 020469  | .019791 | 043473  | 058170  | .000741 |
| 38 | 017311   | 021070  | .020361 | 046182  | 053901  | 001856  |
| 39 | 005534   | 028677  | .018307 | 046218  | 048629  | 005626  |
| 40 | .003915  | 034507  | .019901 | 048243  | 048844  | 004982  |
| 41 | .005110  | 032616  | .021991 | 045638  | 045668  | .001064 |
| 42 | .006374  | 026344  | .021741 | 037222  | 036866  | .008706 |
| 43 | .005769  | 017375  | .020039 | 028367  | 026570  | .012605 |
| 44 | .001665  | 014804  | .018633 | 020351  | 014616  | .011829 |
| 45 | 001123   | 010692  | .020102 | 012952  | 003821  | .010507 |
| 46 | 003139   | 005562  | .020220 | 005546  | 002103  | .013320 |
| 47 | 001038   | 002744  | .019812 | .004386 | .000331 | .019195 |
| 48 | 004358   | .001831 | .016900 | .013746 | .005086 | .024573 |
| 49 | 013549   | .007516 | .014783 | .019182 | .008387 | .024222 |
| 50 | 022626   | .010151 | .013264 | .018590 | .006981 | .022445 |
| 51 | 031074   | .015872 | .011508 | .013852 | .005491 | .024174 |
| 52 | 036020   | .024933 | .013159 | .005978 | .006368 | .022992 |
| 53 | 033834   | .031788 | .015284 | .004728 | .009764 | .022508 |
| 54 | 029610   | .039360 | .011671 | .007819 | .006272 | .018122 |
| 55 | 024269   | .047703 | .008869 | .008945 | 001167  | .015514 |
|    |          |         |         |         |         |         |
| 56 | 017112   | .054149 | .006523 | .011461 | 004633  | .013854 |
| 57 | 010271   | .059778 | .007058 | .022097 | 006028  | .011200 |
| 58 | 003348   | .063350 | .003030 | .026618 | 008864  | .015595 |
| 59 | .000780  | .064770 | .001218 | .031878 | 010671  | .021961 |
| 60 | .003196  | .062909 | 001954  | .038956 | 008717  | .022938 |

RUN NC. 84A 40M 11-06-62 1246-1401 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| M        | U                  | ٧                  | W                  |                    |
|----------|--------------------|--------------------|--------------------|--------------------|
|          | 0.52891            | 0.43416            | 0.33616            | 0 25704            |
|          | 10E 00             | 10E 00             | 10E 00             | 0.2570b<br>10E-02  |
| 0        | 1.000000           | 1.000000           | 1.000000           | 1.000000           |
| ī        | .845065            | .827685            | .792745            | .877436            |
| ž        | .658135            | .608213            | .546233            |                    |
| 3        | .503553            |                    |                    | .713338            |
| 4        | •380908            | .440177<br>.304619 | .376414<br>.262566 | .569239<br>.447814 |
| _        |                    |                    |                    | *******            |
| 5<br>6   | •292360<br>•206470 | •194946<br>•125295 | •177145<br>•102957 | • 344007<br>343034 |
| 7        | .128086            | •084402            | .030824            | •262926            |
| 8        | .060022            | .055653            | 035856             | -194205            |
| 9        | .001877            | .027479            | 084388             | •137034<br>•084184 |
| 10       | 044374             |                    |                    |                    |
| 10<br>11 | 046374             | 000808             | 113662             | -030778            |
|          | 084710             | 031812             | 137552             | 017866             |
| 12       | 116847             | 063967             | 160720             | 054419             |
| 13       | 148509             | 093488             | 188035             | 084748             |
| 14       | 170604             | 119707             | 207517             | 115252             |
| 15       | 191130             | 136299             | 215103             | 146142             |
| 16       | 206479             | 147664             | 211272             | 173115             |
| 17       | 214184             | 162371             | 190991             | 200249             |
| 18       | 221147             | 176567             | 178269             | 226591             |
| 19       | 228504             | 194797             | 174677             | 249067             |
| 20       | 227660             | 210783             | 164762             | - 247501           |
| 21       | 228057             | 216114             |                    | 267501             |
| 22       | 223946             | 221062             | 151694             | 276683             |
| 23       | 222488             |                    | 150025             | 281336             |
| 24       | 210933             | 218670             | 152755             | 288370             |
| 24       |                    | 217484             | 149378             | 294463             |
| 25       | 185907             | 219219             | 138044             | 296696             |
| 26       | 166610             | 217430             | 128192             | 291838             |
| 27       | 143949             | 216975             | 111608             | 279342             |
| 28       | 117278             | 213187             | 098934             | 264559             |
| 29       | 096481             | 202766             | 088168             | 246407             |
| 30       | 073270             | 189949             | 071339             | 216388             |
| 31       | 041616             | 158482             | 039969             | 175152             |
| 32       | 015786             | 111804             | 011806             | 130882             |
| 33       | .011061            | 067300             | .000136            | 089783             |
| 34       | •036953            | 033890             | .003939            | 055619             |
| 35       | .053159            | 017649             | .015721            | 021234             |
| 36       | .058485            | 011744             | .017739            |                    |
| 37       | .053317            | 003738             |                    | .008636            |
| 38       | .044052            | •005425            | • N23334           | .031429            |
| 39       | .034105            | .021697            | .033436            | .038080            |
|          | 1034103            | *021077            | .055248            | • 035672           |
| 40       | .031179            | .033093            | .070820            | .038061            |
| 41       | .027683            | •046006            | .069871            | .042051            |
| 42       | -014237            | .061710            | .058561            | .043003            |
| 43       | 003767             | .082603            | .036532            | .046752            |
| 44       | 025787             | .101974            | .013132            | .055487            |
| 45       | 044325             | .110785            | .001070            | .062046            |
| 46       | 054885             | .107587            | 009153             | .062763            |
| 47       | 059282             | .102105            | 012287             | .062896            |
| 48       | 057358             | .103744            | 004805             | .065658            |
| 49       | 051590             | .095623            | 003749             | .067418            |
| 50       | 020001             |                    |                    |                    |
| 50<br>51 | 039901<br>032941   | .082721            | 011657             | .068307            |
| 52       | 022438             | .067484            | 015578             | •067748            |
| 53       | 010743             | .051311            | 013045             | •067201            |
| 54       | .003766            | .032126<br>.016018 | 001768<br>.009107  | •065363<br>•059992 |
|          |                    |                    | + 50 7 60 1        | • 054447           |
| 55<br>56 | .021720            | .006091            | .010569            | .056598            |
| 57       | .031195            | .002805            | .010441            | .050809            |
| 58       | .025984            | 002479             | -011761            | .041584            |
| 59       | .016234            | 011803             | .015804            | .025331            |
| 17       | .018738            | 021666             | .004179            | .012401            |
| 60       | .024337            | 029427             | 008634             | .005129            |

RUN NO. 84A 40M 11-06-62 1246-1401 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| CO   | • | BE |      | - |    |
|------|---|----|------|---|----|
| 1.11 | 3 | ~~ | 1. I | ш | ,, |

| COZNECIKO      | -                 |                   |                  |                  |                  |                   |
|----------------|-------------------|-------------------|------------------|------------------|------------------|-------------------|
| K              | U,V               | U, W              | U, T             | V, H             | V,T              | W, T              |
|                | •                 |                   |                  |                  |                  |                   |
|                | 10E-02            | 10E-01            | 10E-02           | 10E-02           | 10E-03           | 10E-02            |
|                | 106-02            | 100-01            | 105-05           | 102-02           | 106-03           | 105-05            |
| 0              | .062671           | 015450            | 043646           | 023799           | 015024           | .008884           |
| 1              | .390153           | 132500            | 306212           | 340952           | 519599           | .084179           |
| 2              | .388413           | 235953            | 365102           | 366423           | 517127           | .167032           |
| 3              | .002762           | 366215            | 378968           | 291776           | 026881           | .248264           |
| 4              | 300319            | 280421            | 220508           | 192351           | .313726          | .174086           |
|                |                   |                   |                  |                  |                  | -9-54             |
| 5              | .009586           | 126023            | 110068           | 141275           | .146788          | .085172           |
| 6              | .211880           | 099646            | 099667           | 076987           | 080908           | .077532           |
| 7-8            | .151043           | 075986            | 076648           | 103581           | 028253           | .054944           |
| 9-11           | .008315           | 024325<br>005044  | 033032           | 053374           | .033510          | .026072           |
| 12-15          | 031275            | 005044            | 018070           | 165910           | .002362          | .015507           |
| 16-20          | 001968            | 006769            | 010712           | 037944           | 002891           | .009012           |
| 21-27          | .011416           | 000661            | 003684           | 009541           | 005114           | .005380           |
| 28-36          | 000924            | .000144           | 002116           | 006279           | .005609          | .001859           |
| 37-47          | 008646            | 000061            | 001127           | 001982           | .005969          | .001253           |
| 48-60          | .002014           | .000461           | 000467           | 000738           | .000205          | .000655           |
|                |                   |                   |                  |                  |                  |                   |
|                |                   |                   |                  |                  |                  |                   |
|                |                   |                   |                  |                  |                  |                   |
| QUADRATUR      | E SPECTRUM        |                   |                  |                  |                  |                   |
|                |                   |                   |                  | N                |                  |                   |
| K              | U• <b>V</b>       | U.W               | U•T              | V. W             | V, T             | W, T              |
|                |                   |                   |                  |                  |                  |                   |
|                | 10E-01            | 10E-02            | 10E-02           | 10E-02           | 10E-03           | 10E-03            |
|                | .01 01            |                   | 100 00           |                  | 100 03           | 101 03            |
| 1              | .078510           | 822793            | 108932           | .271695          | .653847          | 236125            |
| 2              | .137221           | 764745            | 130037           | .801666          | .916349          | 126716            |
| 3              | .146010           | 929797            | 114994           | . 863334         | .678320          | .076734           |
| 4              | .048320           | 698696            | 051122           | . 344469         | .067294          | .179973           |
| 5              | 021964            | 084098            | 011128           | .163126          | .071863          | .231542           |
|                |                   |                   |                  |                  |                  |                   |
| 6              | 001693            | .030152           | 007879           | .077383          | .24261.          | .202390           |
| 7-8            | .007093           | 224543            | 017317           | .001415          | •135393          | .006583           |
| 9-11           | .012745           | 066570            | 008728           | .013330          | 026628           | .071755           |
| 12-15          | • 000155          | 083655            | 007788           | 102887           | 037646           | 028513            |
| 16-20          | 000195            | .005217           | 001135           | 042485           | 007972           | .027690           |
| 21 22          | 002070            | 012400            | 001007           | 014530           | 004000           | 000000            |
| 21-27          | .002079           | 012400            | 001907           | 014520           | 004008           | 008899            |
| 28-36<br>37-47 | .001818           | 009661            | 001416<br>000538 | .004744          | 008344           | 007098            |
| 48-60          | .001168<br>000195 | 001487<br>.002559 | 000338           | 001701<br>000840 | 000359<br>003172 | 000906<br>.000245 |
| 40-00          | 000145            | .002334           | 000033           | 000840           | 003172           | .000245           |
|                |                   |                   |                  |                  |                  |                   |
| POWER SPEC     | CTRUM             |                   |                  |                  |                  |                   |
|                |                   |                   |                  |                  |                  |                   |
| K              | (                 | U                 | ٧                |                  | И                | T                 |
|                |                   |                   |                  |                  |                  |                   |
|                | 10E-              | -01               | 10E-01           | 105              | -01              | 105-03            |
|                | 106               | J.                | 105-01           | 106              | J1               | 10E-03            |
| 0              | .08               | 7580              | .050513          | - 01             | 7284             | .047087           |
| ĭ              |                   | 2689              | .472102          |                  | 8260             | .387518           |
| 2              |                   | 2023              | .638875          |                  | 9669             | .482049           |
| 3              |                   | 1739              | .654751          |                  | 0038             | .477090           |
| 4              |                   | 1553              | .378565          |                  | 2947             | .258885           |
|                |                   |                   |                  |                  |                  |                   |
| 5              | .36               | 4376              | .257551          | . 27             | 2398             | .138703           |
| 6              |                   | 1959              | .254643          | . 23             | 1001             | .138351           |
| 7-8            | .23               | 1858              | -206440          | - 15             | 5527             | .107332           |
| 9-11           | .13               | 4380              | .153254          | . 09             | 9761             | .064938           |
| 12-15          | -08               | 5143              | .097695          | .07              | 0952             | .037537           |
|                | _                 |                   |                  |                  |                  |                   |
| 16-20          |                   | 7986              | .045419          |                  | 9729             | .021639           |
| 21-27          |                   | 5 3 7 9           | .030130          |                  | 4349             | .012339           |
| 28-36          |                   | 8973              | .022136          |                  | 9498             | .007642           |
| 37-47          |                   | 4795              | .012782          |                  | 1903             | .005056           |
| 48-60          | .510              | 0240              | .007533          | . 00             | 3014             | .003405           |
|                |                   |                   |                  |                  |                  |                   |

RUN NO. 84A 40M 11-06-62 1246-1401 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

| М        | U,V                      | U, W      | U,T      | V.W      | V, T     | W, T                     |
|----------|--------------------------|-----------|----------|----------|----------|--------------------------|
|          | 0.67171                  | 0.43130   |          |          |          |                          |
|          | 10E 00                   | 10E 00    | 3000170  | 0.31861  | 0.50787  | 0.32610                  |
|          |                          | 105 00    | 10E-01   | 10E 00   | 10E-01   | 10E-01                   |
| 0        | -126924                  | 531085    |          |          |          |                          |
| 1        | .108384                  |           | 757779   | 120637   | 078918   | -460688                  |
| 2        | • 096276                 | 45,1474   | 603230   | 060477   | 070724   | •261750                  |
| 3        | .059777                  |           | 435924   | 060232   | 061751   | .150099                  |
| 4        |                          | 157019    | 322590   | 021689   | 019034   |                          |
| •        | • 045381                 | 118663    | 208650   | 019393   | 033457   | .127485                  |
|          |                          |           |          |          | -1033431 | •116302                  |
| 5        | • 028510                 | 002507    | 071371   | 018306   | 044004   | _                        |
| 6        | 014900                   | .047156   | -058643  |          | 044886   | .017446                  |
| 7        | 070503                   | -104450   | .175601  | 028364   | 030162   | 062610                   |
| 8        | 088993                   | -145079   |          | .005672  | 000336   | 100622                   |
| 9        | 076872                   | .174957   | -280286  | 000411   | .030203  | 147891                   |
|          |                          | 4214731   | .340268  | .031380  | .025787  | 166375                   |
| 10       | 081966                   | 10/2/2    |          |          |          |                          |
| 11       | 081556                   | -196342   | •379309  | • 093199 | .066300  | 160825                   |
| 12       |                          | -189206   | •370071  | .090010  | •095216  |                          |
| 13       | 056754                   | -148920   | .318190  | .037811  | .103230  | 129895                   |
|          | 054067                   | .076983   | .240153  | 005665   |          | 109694                   |
| 14       | 039173                   | .097269   | -190652  | .026710  | .080223  | 068498                   |
|          |                          |           |          | •020710  | .069563  | 087657                   |
| 15       | 001345                   | .072937   | 134304   |          |          |                          |
| 16       | 020024                   | .007390   | -136296  | 006382   | .028594  | 061606                   |
| 17       | 002142                   |           | •101119  | .051299  | .028270  | 041590                   |
| 18       | .023475                  | 007874    | .062477  | .034720  | .027676  | 031914                   |
| 19       | .070251                  | 021846    | •011092  | .035803  | .013756  | 036803                   |
|          | 162010                   | 084696    | 064412   | 025703   | 037919   |                          |
| 20       | 070701                   |           |          |          | 0031717  | .044483                  |
|          | • 072726                 | 063074    | 122597   | 027763   | - 042422 |                          |
| 21       | .059833                  | 002771    | 123075   | 016415   | 042422   | .070480                  |
| 22       | •042017                  | .013509   | 135967   | ~.006953 | 040312   | .035617                  |
| 23       | - 000796                 | .035096   | 135314   |          | 034405   | .001378                  |
| 24       | 000297                   | 024395    | 144461   | .008330  | 025087   | 027929                   |
|          |                          | ********* | -014401  | 024573   | 029786   | .038141                  |
| 25       | 022911                   | 058426    |          |          |          |                          |
| 26       | 042001                   |           | 151826   | • 037962 | 013487   | .076350                  |
| 27       | 036830                   | 047317    | 133845   | .012486  | 031195   | .098934                  |
| 28       |                          | 048381    | 116986   | .014608  | 020848   |                          |
| 29       | 020518                   | 006128    | 071938   | 013224   | 005922   | • 099271                 |
| ٠,       | 013105                   | .017995   | 019808   | .026523  | .000828  | •070077                  |
| 30       |                          |           |          |          | •000028  | .039391                  |
| 30       | • 008422                 | .001731   | .015667  | .028637  | 025001   |                          |
|          |                          |           |          | *020037  | 025081   | <ul><li>059027</li></ul> |
|          |                          |           |          |          |          |                          |
| COSPECTR | 1UM                      |           |          |          |          |                          |
|          |                          |           |          |          |          |                          |
| K        | U,V                      | U,W       |          |          |          |                          |
|          | - •                      | 0,4       | U.T      | V, W     | V • T    | W, T                     |
|          |                          |           |          |          |          |                          |
|          | 10E-01                   | 105 01    |          |          |          |                          |
|          | 100 01                   | 10E-01    | 10E-01   | 10E-02   | 10E-02   | 10E-02                   |
| 0        | 005044                   |           |          |          |          | 105-02                   |
| i        | .005844                  | 019946    | 006542   | 037130   | .004001  |                          |
| 2        | •101873                  | 244895    | 077343   | 576661   |          | .010295                  |
|          | .217206                  | 376370    | 123593   | 778215   | 076671   | .157852                  |
| 3        | <ul><li>308172</li></ul> | 452486    | 138281   | 748062   | 160083   | . 251335                 |
| 4        | • 168191                 | 284359    | 074444   |          | 149802   | .288740                  |
|          |                          |           |          | 302060   | 010106   | .187184                  |
| 5        | .035863                  | 097969    | - 03/555 |          |          |                          |
| 6        | .012647                  | 052932    | 026821   | 006467   | .045686  | .089456                  |
| 7        | 028834                   |           | 009266   | .076021  | .011912  | .039215                  |
| 8        |                          | 053612    | 005337   | .021352  | 017510   |                          |
| 9-11     | 022494                   | 038449    | 010616   | 327699   | 033036   | • 009464                 |
|          | •012380                  | ~• 053364 | 009658   | 167677   |          | .008904                  |
| 12-14    |                          |           |          |          | 015135   | .039449                  |
| 12-14    | .023362                  | 061384    | 007814   | 071364   | 0177     |                          |
| 15-21    | 005735                   | 062255    | 005019   |          | 017752   | .046240                  |
| 22-30    | .007537                  | 035721    | 002502   | 035670   | .011884  | .038133                  |
|          |                          |           | 1002302  | 131115   | 004879   | .024388                  |
|          |                          |           |          |          |          |                          |

RUN NO. 84A 40M 11-06-62 1246-1401 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

| M          | U, V              | U,W               | U.T               | V,W               | V,T               | W,T               |
|------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
|            | 0.67171<br>10E 00 | 0.43130<br>10E 00 | 0.68750<br>10E-01 | 0.31861<br>10E 00 | 0.50787<br>10E-01 | 0.32610<br>10E-01 |
| ,          | .038070           | 077270            | 077452            | 050544            | 042040            | - 007635          |
| 1 2        |                   | 077270            | 077452            | .050564           | .042048           | 007425            |
|            | .036373           | 081746            | 088374            | .002440           | .043842           | 024990            |
| 3          | 005667            | 050804            | 081152            | .000167           | .024251           | .002780           |
| <u> </u>   | -011557           | 060735            | 093891            | 009887            | .002026           | .012679           |
| 5          | .010276           | 014940            | 086414            | .069501           | .030849           | .039846           |
| 6          | .032851           | .005861           | 082794            | .107347           | .020562           | .029996           |
| .7.        | .048869           | 012014            | 085284            | .087047           | .040152           | .026562           |
| 8          | .053259           | 029303            | 057030            | .094334           | .056247           | .004765           |
| 9          | .088398           | 011230            | 018158            | .101092           | .095203           | 017776            |
| 10         | .051384           | .007782           | 012675            | .058971           | • 056196          | 003394            |
| 11         | .011927           | .010950           | 002958            | .035821           | .030863           | .022438           |
| 12         | 026213            | .037856           | 005186            | .005868           | .010253           | .052428           |
| 13         | 066200            | .059977           | 002749            | .003624           | 010540            | .058788           |
| 14         | 067117            | .064345           | .000029           | 017428            | 038605            | .048680           |
| 15         | 078266            | .028132           | .005181           | 061254            | 075109            | .013297           |
| • •        | .010200           | .020132           | .003.01           | 1001234           | 0013207           | •0232             |
| 16         | 084789            | .006250           | 029875            | 030114            | 087024            | .016017           |
| 17         | 098510            | 001494            | 015024            | 046674            | 130939            | .016786           |
| 18         | 121436            | .034365           | .007153           | 097699            | 162400            | .011647           |
| 19         | 132990            | .079902           | .011445           | 106100            | 175006            | .035654           |
| 20         | 084974            | .066947           | .019508           | 062403            | 110737            | .014693           |
| 21         | 034963            | .021568           | .023860           | 057486            | 080510            | 011301            |
| 22         | .008500           | 013858            | .019096           | 035267            | 026309            | 029704            |
| 23         | .047137           | 045421            | 002635            | 040554            | 009239            | 038216            |
| 24         | .046310           | 052097            | .009746           | 002417            | 025346            | 066726            |
| 25         | .020984           | 050832            | .010685           | 033005            | 041854            | 070635            |
| 24         | 004437            | 0/37/0            | 221212            | 0107//            | 020022            | 0271//            |
| 26         | .006437           | 063769            | .001810           | 012745            | 020022            | 027144            |
| 27         | .018140           | 070739            | 007482            | • 01 3009         | .007536           | 042980            |
| 28         | .008956           | 064935            | 018161            | 040985            | -002548           | 039418            |
| 29         | .009944           | 073732            | 050308            | 053250            | .030839           | 016308            |
| 30         | .039573           | 077774            | 061697            | 030815            | .061407           | 015080            |
| QUADRATURE | SPECTRUM          |                   |                   |                   |                   |                   |
| K          | U.V               | U, M              | U, T              | V,W               | V, T              | W. T              |
|            | 10E-01            | 10E-02            | 10E-02            | 10E-01            | 10E-02            | 10E-03            |
| 1          | 075638            | .290534           | 212913            | .058470           | 039311            | .602066           |
| ž          | .139965           | 426994            | 213213            | .113248           | .148466           | .275039           |
| 3          | .175298           | 955815            | 207509            | .079115           | .120077           | 105010            |
| á          | 045828            | 617484            | 165654            | 018795            | 061366            | .010208           |
| 5          | 095736            | 458485            | 110195            | 042754            | 045836            | .117669           |
| -          | .075150           | 170407            | 0110177           | 1042174           | 1077030           |                   |
| 6          | 012754            | 340573            | 037060            | 032997            | .033726           | .015605           |
| 7.         | .014551           | 388498            | 011187            | 024984            | .026595           | 161555            |
| 8          | .071517           | 777829            | 030370            | 000307            | .041051           | 421237            |
| 9-11       | .032171           | 254525            | 040170            | .016866           | .027953           | 077747            |
| 12-14      | .031920           | 056481            | 021948            | .026562           | .015434           | 017677            |
| 15-21      | 013435            | - 188111          | - 020035          | .005737           | .003487           | .019841           |
| 15-21      | - 013635          | 188111            | 020035            |                   |                   |                   |
| 22-30      | 013315            | .070930           | .003724           | • 015446          | .008201           | .068327           |

RUN NO. 84A 40M 11-06-62 1246-1401 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

| M              | U        | V                  | w                 | T                    |
|----------------|----------|--------------------|-------------------|----------------------|
|                | 0.90930  | 0.49621            | 0 20/50           |                      |
|                | 10E 00   | 10E 00             | 0.20458<br>10E 00 | 0.51981<br>10E-02    |
| 0              | 1.000000 | 1.000000           | 1.000000          | 1 000000             |
| 1              | .695389  | •602620            | • 243750          | 1.000000             |
| 2              | .475987  | •365895            | .042363           | -738336              |
| 3              | .354338  | .192610            | .005836           | •499728              |
| 4              | •202506  | .119489            | .008695           | • 323284<br>• 204833 |
| 5              | .043686  | .048706            | 042050            | .057660              |
| 6              | 065255   | 079203             | 060072            | 098337               |
| 7              | 196104   | 129840             | 063821            | 233419               |
| 8              | 303155   | 167235             | 122856            | 348546               |
| 4              | 344424   | 184151             | 133490            | 389588               |
| 10<br>11       | 405214   | 217798             | 158792            | 378434               |
| 12             | 449253   | 238355             | 146040            | 344642               |
| 13             | 379057   | 227121             | 105668            | 335338               |
| 14             | 277663   | 209714             | 076783            | 276294               |
| 17             | 214657   | 251947             | 080546            | 224516               |
| 15             | 154206   | 193983             | 027120            | 147782               |
| 16             | 093969   | 140359             | .040042           | 109730               |
| 17             | 044802   | 087768             | 016747            | 032537               |
| 18<br>19       | •009583  | 038934             | 053672            | .004153              |
| 19             | .103126  | 020949             | .030166           | .034301              |
| 20             | -125898  | .036754            | -049421           | 004105               |
| 21             | -132122  | .060877            | .067360           | -094105              |
| 22             | .154618  | 030037             | 048256            | -112669              |
| 23             | ·120298  | 032106             | 063318            | •155297              |
| 24             | -110612  | 019775             | .046943           | •160913<br>•173729   |
| 25             | •112902  | 007314             | .083095           |                      |
| 26             | .088716  | .021815            | .037066           | .174195              |
| 27             | .056371  | .057721            | .013072           | -158980              |
| 28             | .006834  | .097188            | .024650           | -148191              |
| 29             | 015440   | -058641            | 025592            | •114383<br>•032049   |
| 30             | 047512   | .063318            | .075169           | 038256               |
| POWER SPECTRUM | ı        |                    |                   |                      |
| ĸ              | U        |                    |                   |                      |
| ,,             | U        | V                  | W                 | T                    |
|                | 10E 00   | 10E-01             | 10E-01            | 10E-02               |
| 0              | .010727  | •065184            | .004767           |                      |
| 1              | -118941  | .667056            | .088758           | •006506              |
| 2              | -184470  | .813893            | ·145096           | •067997              |
| 3              | -209638  | .790687            | .182930           | -105472              |
| 4              | -115403  | .470820            | .141333           | •119610<br>•071112   |
| 5              | •042985  | •289079            | 000000            |                      |
| 6              | .024617  | •276020            | .088390           | .033468              |
| 7              | .022979  | •217542            | .073963           | -017001              |
| 8              | .027243  | •217342<br>•152787 | .084826           | .011308              |
| 9-11           | .017857  | •151429            | .093631           | .010818              |
| 12-14          |          |                    | •088229           | .013095              |
| 12-14<br>15-21 | -017767  | -134626            | .077756           | .009694              |
| 22-30          | •013973  | •071721            | .078191           | .005329              |
| 22-30          | •009151  | .088977            | .078106           | .004430              |

RUN NO. 84A 16M 11-06-62 1246-1401 EST RUN NO. 84A 40M 11-06-62 1246-1401 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

#### COHERENCE WITH QUADRATURE

| K      | U       | v       | W        | T       |
|--------|---------|---------|----------|---------|
|        | 10E 00  | 10E 00  | 10E 00   | 10E 00  |
| 0      | .687771 | .453274 | .634111  | .653993 |
| o<br>l | .525885 | .708080 | .571184  | .548277 |
| 2      | .370828 | .640014 | .520078  | .513005 |
| 2      | .362450 | .571203 | .481616  | .510648 |
| 4      | .318818 | .461650 | .439497  | .430456 |
| 5<br>6 | .165221 | .300969 | . 364008 | -284948 |
| 6      | .168501 | .333541 | .347246  | .248513 |
| 7-8    | .166783 | .353611 | .348372  | .208657 |
| 9-11   | .061735 | .292938 | . 289304 | .131655 |
| 12-15  | .061544 | .204544 | . 302520 | .226530 |
| 16-20  | .061733 | -161020 | .076907  | .077796 |
| 21-27  | .102163 | .078205 | .123878  | .150198 |
| 28-36  | .126426 | .124194 | .108343  | .133677 |
| 37-47  | .105923 | .107279 | -144208  | .124993 |
| 48-60  | -101775 | .106695 | .124476  | .119598 |

# 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

#### COHERENCE WITH QUADRATURE

| К     | U       | V       | W        | T       |
|-------|---------|---------|----------|---------|
|       | 10E 00  | 10E 00  | 10E 00   | 10E 00  |
| 0     | .939414 | .834356 | .807306  | .960857 |
| 1     | .923257 | .808867 | . 795396 | .961241 |
| 2     | .916492 | .874250 | • 793020 | .961320 |
| 3     | .887766 | .906095 | .788135  | .939293 |
| 4     | .831637 | .861491 | .733526  | .878718 |
| 5     | .751549 | .763497 | .646761  | .796204 |
| 6     | .692941 | .737539 | .660328  | .708295 |
| 7     | .771215 | .715832 | .589733  | .502713 |
| 8     | .751131 | .687394 | . 551042 | .498756 |
| 9-11  | .306842 | •689258 | . 584394 | .475326 |
| 12-14 | .509874 | .539866 | .515179  | .641775 |
| 15-21 | .401349 | .439500 | .392889  | .404003 |
| 22-3C | .226810 | .307557 | . 390974 | .393587 |

# RUN NO. 84B 16M 11-06-62 1401-1513 EST

#### GROSS STATISTICS

10 AS SC WIND SPEED 5.02 M/SEC WIND DIRECTION 328 DEG

| NEAR NEUTRAL     | SIGMA                   | A 13.7 DEG                     | SDLAR RAD                     | DIATION 0.07                       |
|------------------|-------------------------|--------------------------------|-------------------------------|------------------------------------|
| LAND             | SIGMA                   | E 5.7 DEG                      | NET RADIA                     | TION 0.02                          |
|                  |                         |                                |                               |                                    |
|                  |                         |                                |                               |                                    |
|                  | WITH NO<br>RUNNING MEAN | WITH 301 POINT<br>RUNNING MEAN | WITH 61 POINT<br>RUNNING MEAN | 301 PT RUN MEAN<br>10 PT BLOCK AVG |
| VARIANCES        |                         |                                |                               |                                    |
|                  |                         |                                |                               |                                    |
| U                | 0.13206E 01             | 0.77916E 00                    | 0.41090E-00                   | 0.60386E 00                        |
| V                | 0.15486E 01             | 0.71616E 00                    | 0.47439E-00                   | 0.49910E-00                        |
| la .             | 0.23373E-00             | 0.22206E-00                    | 0.19045E-00                   | 0.10956E-00                        |
| Ť                | 0.11080E-01             | 0.13828E-02                    | 0.73929E-03                   | 0.10661E-02                        |
| E                | 0.15514E 01             | 0.85869E 00                    | 0.53788E 00                   |                                    |
| GUSTINESS RATIO  | c                       |                                |                               |                                    |
|                  | -                       |                                |                               |                                    |
| U                | 0.22892                 | 0.17584                        | 0.12769                       | 0.15480                            |
| V                | 0.24789                 | 0.16858                        | 0.13720                       | 0.14073                            |
| W                | 0.09631                 | 0.09387                        | 0.08693                       | 0.06594                            |
| COVARIANCES      |                         |                                |                               |                                    |
|                  |                         |                                |                               |                                    |
| U,V              | 0.83240E-02             | -0.19260E-01                   | -0.76757E-02                  | -0.25580E-01                       |
| U,W              | -0.21662E-00            | -0.16576E-00                   | -0.10099E-00                  | -0.13004E-00                       |
| U, T             | -0.82608E-01            | -0.20772E-01                   | -0.83265E-02                  | -0.18046E-01                       |
| V,W              | 0.21608E-01             | 0.67992E-02                    | -0.41015E-02                  | 0.50158E-02                        |
| V,T              | -0.14648E-01            | 0.48937E-03                    | 0.23707E-03                   | 0.99253E-03                        |
| W,T              | 0.91879E-02             | 0.44025E-02                    | 0.21250E-02                   | 0.38525E-02                        |
| WE               | -0.25326E-01            | 0.11150E-01                    | 0.76845E-02                   |                                    |
| NORMALIZED COVAR | RIANCES                 |                                |                               |                                    |
|                  |                         |                                |                               |                                    |
| u,v              | 0.00582                 | -0.02578                       | -0.01739                      | -0.04660                           |
| U•₩              | -0.38991                | -0.39850                       | -0.36102                      | -0.50558                           |
| U,T              | -0.68294                | -0.63282                       | -0.47774                      | -0.71125                           |
| V. W             | 0.03592                 | 0.01705                        | -0.01365                      | 0.02145                            |
| V, T             | -0.11183                | 0.01555                        | 0.01266                       | 0.04303                            |
| W,T              | 0.18055                 | 0.25124                        | 0.17917                       | 0.35646                            |
|                  |                         |                                |                               |                                    |

RUN NO. 84B 16M 11-06-62 1401-1513 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| MURHALIZEU | LUSPECIKUP         | CDANKINGE          |                    |                    |                    |                    |
|------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| н          | U.V                | U, W               | U,T                | V.W                | V,T                | W.T                |
|            | •••                | -•                 |                    |                    |                    |                    |
|            | 0.44142            | 0.27974            | 0.17428            | 0.30054            | 0.18724            | 0.11866            |
|            | 10E 00             | 10E 00             | 106-01             | 10E 00             | 10E-01             | 10E-01             |
| •          | 017200             | . 241240           | - 477053           | 013563             | 019574             | 170040             |
| 0<br>1     | 017398<br>019292   | 361248<br>332998   | 477953<br>434606   | 013553<br>016672   | .012576<br>.022439 | .179069<br>.173787 |
| ž          | 022553             | 276287             | 368531             | 017457             | .034256            | .150241            |
| 3          | 029127             | 213003             | 307003             | 012037             | .038933            | .116911            |
| 4          | 027788             | 147037             | 253509             | 009505             | .040344            | .073784            |
|            |                    |                    |                    |                    |                    |                    |
| 5          | 022306             | 086297             | 204939             | 007385             | .042707            | .039588            |
| 6          | 016741             | 038857             | 160945             | .000606            | .043484            | .012528            |
| 7          | 012709             | 006921             | 130020             | .004851            | .040780            | 006002<br>013249   |
| 9          | 008765<br>008858   | .018556<br>.032741 | 101176<br>076435   | .004162<br>.005810 | .038454<br>.037168 | 019469             |
| 2.5        |                    | 1032141            | 2010433            | .007010            | .031200            | *01,40,            |
| 10         | 013868             | .040033            | 045088             | .017350            | .039755            | 024643             |
| 11         | 015705             | .051395            | 017823             | .025484            | .044146            | 032092             |
| 12         | 016134             | .060422            | .006734            | .028621            | .040284            | 033567             |
| 13         | 015095             | .065409            | .024273            | .033012            | .029765            | 031929             |
| 14         | 010171             | .063621            | .039685            | .028138            | .016854            | 029023             |
| 15         | 007569             | .058054            | .055694            | .018888            | .009244            | 026504             |
| 16         | 006024             | .053824            | .070892            | .014504            | .005915            | 022362             |
| 17         | 009881             | .047370            | .088776            | .015179            | .006992            | 018687             |
| 18         | 012742             | .044736            | -101928            | .026626            | .001773            | 014822             |
| 19         | 011540             | .052591            | -111059            | .036329            | 008236             | 016891             |
|            |                    |                    |                    |                    |                    |                    |
| 20         | 007770             | -057921            | .115499            | .041849            | 016810             | 016621             |
| 21         | 003432             | .061905            | .119322            | .044604            | 027951             | 019282             |
| 22<br>23   | .003953<br>.012222 | .062432<br>.060010 | •121253<br>•126039 | .044843<br>.047568 | 036232<br>039172   | 023397<br>022837   |
| 24         | .017160            | .062857            | .126741            | .046414            | 047084             | 024830             |
| - '        |                    |                    | ******             |                    | *******            | 1021030            |
| 25         | .023064            | .072843            | .129752            | .043188            | 050810             | 029808             |
| 26         | .026416            | .083896            | .135860            | .037377            | 048842             | 038929             |
| 27         | .028119            | .087084            | -141212            | .025212            | 049228             | 039332             |
| 28         | .031634            | .081626            | .136068            | .010822            | 050616             | 033856             |
| 29         | .034038            | .066489            | .127290            | 001905             | 047308             | 029462             |
| 30         | .033056            | .052709            | .115167            | 009629             | 041403             | 027976             |
| 31         | .031910            | .042626            | .104453            | 020019             | 036695             | 018305             |
| 32         | .030407            | .031569            | .095580            | 031019             | 034235             | 008976             |
| 33         | .026949            | .025175            | .081607            | 041105             | 029921             | 002603             |
| 34         | .022781            | .023336            | .070555            | 048152             | 031715             | .000336            |
| 3.5        | 015/70             | 024571             | 055330             | 054534             | 030354             | .005259            |
| 35<br>36   | .015678<br>.004776 | .024571<br>.021332 | .055239<br>.039248 | 054534<br>049574   | 028913             | • 005259           |
| 37         | 002886             | .012653            | .032389            | 040659             | 032835             | .008309            |
| 38         | 005378             | .003829            | .030789            | 037149             | 035490             | .010656            |
| 39         | 001730             | 005685             | .023846            | 045363             | 037418             | .014877            |
|            | -3155-2            |                    |                    | .0.14.             |                    |                    |
| 40         | .008057            | 007531             | .018465            | 056181             | 039734             | .014616            |
| 41<br>42   | .017853<br>.027943 | 003009<br>.005225  | .014421<br>.012791 | 058102<br>057394   | 037711<br>034612   | -006506<br>005410  |
| 43         | .032306            | .007067            | .021433            | 058470             | 031252             | 015196             |
| 44         | .034041            | .006248            | .031180            | 061493             | 029210             | 025134             |
|            |                    |                    |                    |                    |                    |                    |
| 45         | .030330            | .005691            | .033860            | 061807             | 021828             | 031318             |
| 46         | .023110            | 004590             | .031850            | 063377             | 014970             | 027537             |
| 47         | .021267            | 021900             | .022933            | 064485             | 012894             | 018823             |
| 48<br>49   | .021912<br>.016389 | 033694<br>047098   | .012068<br>.001565 | 064843<br>059459   | 005428<br>.006654  | 011071<br>009940   |
| 77         | .010307            | 04/090             | •001303            | - 6 0 2 7 7 2 7    | •000074            | ~.009940           |
| 50         | .009629            | 051891             | 006035             | 043339             | .016408            | 010306             |
| 51         | .003257            | 052861             | 008907             | 021425             | .019800            | 009715             |
| 52         | 000959             | 052333             | 005727             | 007824             | .024912            | 003847             |
| 53         | 007394             | 045622             | .000925            | .003676            | .029461            | 000835             |
| 54         | 010876             | 032021             | .005772            | .019222            | .029663            | 005956             |
| 55         | 013189             | 01676 <i>i</i>     | .016711            | .032052            | .031262            | 016723             |
| 56         | 015065             | 000468             | .025700            | .038957            | .029156            | 018949             |
| 57         | 014983             | .007883            | .026793            | .040564            | .024503            | 015768             |
| 58         | 013762             | .010398            | .019152            | .033761            | .018972            | 010397             |
| 59         | 009138             | .011714            | .008315            | .024702            | .014494            | 002234             |
|            |                    |                    |                    |                    |                    |                    |
| 60         | 000972             | .014249            | 000682             | .014893            | .009402            | .009060            |

RUN NO. 848 16M 11-06-62 1401-1513 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| M        | U, V               | U.W                | U,T                | V,W                | V,T                | W. T               |
|----------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|          | 0.44142<br>10E 00  | 0.27974<br>10E 00  | 0.17428<br>10E-01  | 0.30054<br>10E 00  | 0.18724<br>10E-01  | 0.11866<br>10E-01  |
|          |                    |                    |                    |                    |                    |                    |
| l<br>2   | 006514             | 058906             | 034930             | .007388            | .000586            | 017312<br>012691   |
| 3        | 010156<br>007067   | 091387<br>108335   | 058736<br>075063   | .013591            | .009227            | 007528             |
| 4        | 003722             | 112599             | 081949             | .020872            | .028635            | 001950             |
| 5        | 005292             | 106860             | 083409             | .025237            | .023138            | 003869             |
| 6        | 009520             | 097503             | 084021             | .023365            | .018291            | 009450             |
| 7        | 009636             | 086774             | 087933             | .018453            | .019037            | 012487             |
| 8        | 002840             | 074881             | 091355             | .018218            | .022085            | 012654             |
| 10       | .002801<br>.003017 | 066254<br>061758   | 092013<br>088531   | .019595<br>.011019 | .027607<br>.029604 | 012980<br>014476   |
| 11       | 000692             | _ 052700           | 084729             | .002776            | .030682            | 013446             |
| 12       | 003002             | 052790<br>044926   | 077018             | 003244             | .026384            | 015373             |
| 13       | 008296             | 039530             | 064855             | 006812             | .026748            | 010887             |
| 14       | 012839             | 023553             | 061200             | 010934             | .029888            | 005452             |
| 15       | 014174             | 004689             | 060523             | 012477             | .033132            | .007264            |
| 16       | 012183             | .006766            | 061216             | 017480             | .035402            | .013906            |
| 17       | 006570             | .007001            | 063223             | 023844             | .037748            | .027604            |
| 18       | .003423            | .002470            | 063150             | 029451             | .041615            | .044077            |
| 19       | •008545            | 000841             | 061672             | 032699             | .038520            | .051337            |
| 20       | .003980            | 000908             | 054595             | 028905             | .036955            | .053628            |
| 21       | .000712            | .007281            | 044178             | 021133             | .035446            | .059420            |
| 22       | .003606            | -014935            | 035698             | 016341             | .033707            | .057521            |
| 23       | .006243            | .017846            | 026536             | 010986             | .029302            | .051987            |
| 24       | .008593            | .023307            | 014196             | 010863             | .026973            | .050283            |
| 25       | -013825            | .021124            | 002829             | 013751             | .028432            | .045457            |
| 26       | .016284            | .020871            | .011134            | 019237             | .024203            | .036632            |
| 27       | .014079            | .024047            | .026267            | 021417             | .019947            | .029393            |
| 28<br>29 | .007800            | .029561            | .034419            | 028076             | .014669            | •023406            |
| 30       | 000696<br>009310   | .037684<br>.041852 | .042452<br>.046712 | 037570<br>043297   | .007888            | .020685<br>.015221 |
| 31       | 018583             | .041265            | .044765            | 036982             | 015095             | .007253            |
| 32       | 027062             | .038280            | .040600            | 027883             | 036518             | .002103            |
| 33       | 029703             | .028974            | .039031            | 022376             | 048483             | 008580             |
| 34       | 028763             | .025424            | .035611            | 020345             | 051996             | 019860             |
| 35       | 028977             | .028193            | .028974            | 021990             | 050915             | 019322             |
| 36       | 028766             | .031922            | .021215            | 018365             | 045814             | 017245             |
| 37       | 029264             | .029068            | .015718            | 012833             | 044209             | 014656             |
| 38       | 028618             | .015025            | .014596            | 007109             | 042735             | 022017             |
| 39       | 024584             | 001643             | .008484            | .000311            | 038623             | 033199             |
| 40       | 017940             | 011862             | •001731            | .007160            | 032530             | 033516             |
| 41       | 012708             | 015481             | 001825             | .016764            | 030655             | 028152             |
| 42       | 006123<br>.001317  | 018997             | 001635<br>005462   | .030375            | 028601             | 022584             |
| 43<br>44 | .007002            | 018736<br>012175   | 002699             | .041859<br>.051950 | 021513<br>014317   | 021288<br>021326   |
| 45       | .013583            | 009319             | .007078            | .051560            | 009297             | 030312             |
| 46       | .018064            | 007063             | .013601            | .047694            | 005099             | 029280             |
| 47       | .017631            | 006866             | .015267            | . 042406           | 004353             | 018566             |
| 48       | .017518            | 008971             | .010972            | .040341            | 007304             | 008550             |
| 49       | .014953            | 003989             | .002903            | .042898            | 009414             | .002910            |
| 50       | .010840            | 001552             | 004800             | .046429            | 010678             | .010738            |
| 51       | .007734            | 001206             | 010981             | .040733            | 011457             | .013203            |
| 52       | .007787            | 005894             | 013962             | .033003            | 011379             | .015459            |
| 53       | .015605            | 011209             | 017244             | .030591            | 004040             | .020494            |
| 54       | .020736            | 013504             | 017739             | .027872            | .005681            | .022359            |
| 55       | .023917            | 005000             | 013336             | .015854            | .010796            | .019569            |
| 56       | .023369            | .010310            | 009013             | .001044            | .011300            | .021200            |
| 57       | .021894            | .020628            | 004840             | 005935             | .010351            | .024610            |
| 58       | .022124            | .030509            | 003670             | 010754             | .015665            | .022463            |
| 59       | .017804<br>.010699 | .030886            | 003192             | 011766             | .021571            | .016192            |
| 60       | • 0100 99          | .025232            | .001448            | 019061             | .028194            | .002503            |

RUN NC. 84B 16M 11-06-62 1401-1513 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| М        | U                  | ٧                  | W                  | Ť                  |
|----------|--------------------|--------------------|--------------------|--------------------|
|          | 0.41086            | 0.47425            | 0.19046            | 0.73925            |
|          | 10E 00             | 10E 00             | 10E 00             | 10E-03             |
| 0        | 1.000000           | 1.000000           | 1.000000           | .00000             |
| 1 2      | .851714<br>.664045 | .863701<br>.673319 | .755352<br>.477380 | .83551J<br>.652372 |
| 3        | .513572            | .518777            | .281027            | .511567            |
| 4        | . 389243           | .398186            | .146868            | • 394629           |
| 5        | .298161<br>.225814 | .295740<br>.211089 | .056014<br>010117  | .298111<br>.222939 |
| 7        | .161122            | .144153            | 063755             | .164824            |
| 8<br>9   | •101116<br>•046202 | .093917<br>.054463 | 101526<br>120814   | -101407<br>-052983 |
| 10       | 002827             | .020992            | 123162             | .006348            |
| 11       | 045736             | 015236             | 130605             | 039340             |
| 12<br>13 | 079101<br>107531   | 048060<br>082416   | 126555<br>117011   | 075011<br>096952   |
| 14       | 133705             | 117394             | 103751             | 113865             |
| 15       | 151185             | 147151             | 094131             | 128354             |
| 16<br>17 | 162852<br>171882   | 168722<br>190094   | 067455<br>057468   | 141713<br>163353   |
| 18       | 181045             | 217153             | 064827             | 177544             |
| 19       | 193785             | 246541             | 073179             | 189496             |
| 20       | 204338             | 275064             | 088040             | 201796             |
| 21<br>22 | 212269<br>218819   | 297572<br>319791   | 101378<br>095576   | 203907<br>200054   |
| 23       | 229294             | 333569             | 096760             | 202451             |
| 24       | 230022             | 333935             | 102245             | 194022             |
| 25       | 225494             | 325584             | 114117             | 192483             |
| 26<br>27 | 227273<br>230930   | 305019<br>273151   | 120456<br>117171   | 206215<br>212351   |
| 28       | 225292             | 238986             | 108247             | 204390             |
| 29       | 210025             | 201600             | 08793 <i>2</i>     | 195498             |
| 30       | 185660             | 159182             | 057598             | 179569             |
| 31<br>32 | 149539<br>109402   | 113654<br>074207   | 031726<br>020018   | 155771<br>132233   |
| 33       | 075512             | 042349             | 009188             | 113011             |
| 34       | 046319             | 020576             | .002712            | 089370             |
| 35       | 025195             | 006818             | .005354            | 061596             |
| 36<br>37 | 001762<br>.015917  | .007652<br>.020224 | 005952<br>006609   | 035722<br>009914   |
| 38       | .020542            | .036110            | 004522             | .000792            |
| 39       | .022152            | .051820            | 004204             | .004221            |
| 40       | .023219            | .064363            | 006616             | .009328            |
| 42       | .023821<br>.022128 | .071857<br>.073891 | 006575<br>015093   | .009664            |
| 43       | .012682            | .077813            | 032137             | 000463             |
| 44       | .010138            | .076647            | 037439             | 014533             |
| 45       | .009727            | .070470            | 043448             | 020316             |
| 46<br>47 | .013028<br>.021070 | .066657<br>.065614 | 030400<br>000992   | 026779<br>025828   |
| 48       | .025622            | .065244            | .011732            | 021287             |
| 49       | .029047            | .062412            | .030328            | 012009             |
| 50       | .029198            | .055945            | .047279            | 004467             |
| 51<br>52 | .028048<br>.023583 | .039548<br>.018088 | .043666<br>.036632 | 004336<br>012501   |
| 53       | .014825            | 003380             | .022683            | 023245             |
| 54       | .003465            | 021726             | .014437            | 032264             |
| 55<br>56 | 016822<br>033429   | 035465<br>047874   | .001520            | 045982             |
| 57       | 039171             | 064661             | 007647<br>002253   | 061330<br>064217   |
| 58       | 042640             | 079120             | 008274             | 051986             |
| 59       | 041078             | 081295             | 015415             | 034696             |
| 60       | 043570             | 075304             | 010081             | 021391             |

RUN NO. 84B 16M 11-06-62 1401-1513 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

|    | • | _ | _ | • |   |   |     |
|----|---|---|---|---|---|---|-----|
| CO | 3 | r | c | L | ш | ĸ | ιп. |

| K              | U•V                | U, W               | U•T                | V.W                | V , T             | W, T              |
|----------------|--------------------|--------------------|--------------------|--------------------|-------------------|-------------------|
|                | 10E-02             | 10E-01             | 10E-02             | 10E-02             | 10E-03            | 10E-03            |
| 0              | -,054741           | 011300             | 022685             | .072854            | .024817           | .038356           |
| 1              | 626486             | 115441             | 172622             | .446785            | .447477           | .269297           |
| 2              | 484481             | 151127             | 177397             | 081806             | .424029           | .290820           |
| 3              | 113224             | 157160             | 151505             | 528368<br>187658   | .145666<br>085011 | .323619           |
|                | .118659            | 115642             | 083415             | 101030             | 085011            | .204100           |
| 5              | .068903            | 097155             | 047878             | .073883            | 132213            | .212647           |
| 6              | 154765             | 093563             | 042031             | 008329             | 086716            | .238121           |
| 7-8            | 040557             | 066970             | 027374             | 122136             | 004389            | .159108           |
| 9-11<br>12-15  | .009187<br>.042929 | 030289<br>015814   | 018466<br>010199   | .059530<br>027315  | 021744<br>017597  | .071311           |
| 15-13          | • 042727           | 013614             |                    | 02/31/             |                   | 1033424           |
| 16-20          | .028268            | 002481             | 005027             | .023895            | 015884            | 002448            |
| 21-27          | .005161            | 002319             | 002923             | 004173             | 010127            | 003087            |
| 28-36          | 007241             | 001602             | 001897             | .008429            | 007028            | 002268            |
| 37-47<br>48-60 | 001621<br>-004134  | 000439<br>000349   | 000876<br>000717   | .005046<br>001613  | 002657<br>001922  | .001414<br>002456 |
| 40-00          | .004154            | 000349             | 000717             | 001013             | 001722            | -,002430          |
| QUADRATU       | RE SPECTRUM        |                    |                    |                    |                   |                   |
|                |                    |                    |                    |                    | _                 |                   |
| K              | U,V                | U, W               | UeT                | V,W                | V, T              | W, T              |
|                | 10E-02             | 10E-02             | 10E-03             | 10E-02             | 10E-03            | 10E-03            |
| 1              | 197465             | 143902             | 485707             | 337554             | .249778           | .158816           |
| 2              | .000894            | 481016             | 602585             | 119117             | .350352           | .099365           |
| 3              | 020623             | 825968             | 604690             | . 263321           | .195155           | 078745            |
| 4              | 230871             | 702586             | 286876             | . 223069           | 070076            | 180626            |
| 5              | 041860             | 489128             | 078211             | .124021            | 019597            | 067384            |
| 6              | .162415            | 473580             | 128111             | .208286            | .088673           | .032689           |
| 7-8            | 071152             | 300112             | 145435             | .036845            | .012873           | .044573           |
| 9-11           | 059069             | 159107             | 018884             | 001257             | .022577           | 016503            |
| 12-15          | .023152            | 131670             | 041351             | 014512             | .010025           | 007165            |
| 16-20          | 033725             | 022427             | 014629             | .004489            | 009321            | 013225            |
| 21-27          | 027252             | 017396             | 002496             | 005463             | 017877            | 011770            |
| 28-36          | .009244            | 010058             | 001979             | .012305            | 002274            | 003413            |
| 37-47          | .001589            | 008706             | 001589             | .002672            | .000911           | 005047            |
| 48-60          | .000511            | 002986             | 000879             | .001284            | 000679            | 001319            |
| POWER SPI      | ECTRUM             |                    |                    |                    |                   |                   |
| K              | U                  | ٧                  | W                  | Ť                  |                   |                   |
|                |                    |                    |                    |                    |                   |                   |
|                | 10E-01             | 10E-01             | 10E-01             | 10E-03             |                   |                   |
| 0              | .072226            | .063333            | .011333            | .013875            |                   |                   |
| 1              | .569580            | .610659            | .118364            | .108179            |                   |                   |
| 2<br>3         | .672850<br>.674198 | .826860<br>.866219 | •155442<br>•181327 | .119831<br>.115234 |                   |                   |
| 4              | .413401            | .466652            | .158406            | .072631            |                   |                   |
| ·              |                    |                    |                    |                    |                   |                   |
| 5              | .259581            | .220404            | .138290            | .048143            |                   |                   |
| 6              | . 249235           | .233593            | .143752            | .044262            |                   |                   |
| 7-8<br>9-11    | .171480<br>.103846 | .241662<br>.129012 | •125326<br>•070494 | .029037<br>.019113 |                   |                   |
| 12-15          | .072371            | .082838            | .049650            | .012411            |                   |                   |
| ,              | 1012311            | - 702030           | . 3 7 7 3 3 0      |                    |                   |                   |
| 16-20          | .043982            | .042884            | .031329            | .007594            |                   |                   |
| 21-27          | .024136            | .030177            | .021547            | .004694            |                   |                   |
| 28-36          | .015314            | -017240            | .012503            | .003353            |                   |                   |
| 37-47          | .011291            | .009240            | .008530            | .00228?            |                   |                   |
| 48-60          | .006467            | .005955            | .005829            | .001651            |                   |                   |

RUN NC. 84B 16M 11-06-62 1401-1513 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

| NORMALIZE | D COSPECTRUM | COVARIANCE |              |          |         |                  |
|-----------|--------------|------------|--------------|----------|---------|------------------|
| м         | U,V          | U,W        | U,T          | V, W     | V.T     | W <sub>*</sub> T |
|           | 0.54922      | 0.25742    | 0.25368      | 0.23406  | 0.23066 | 0.10811          |
|           | 10E 00       | 10E 00     | 10E-01       | 10E 00   | 10E-01  | 10E-01           |
| 0         | 046576       | 505173     | 711389       | .021429  | .043030 | .356349          |
| 1         | 038626       | 242233     | 505059       | .041887  | .047253 | .211679          |
| 2         | 034798       | 180573     | 345776       | .032139  | .008759 | .170181          |
| 3         | 004772       | 105472     | 204212       | 061847   | 023998  | .125401          |
| 4         | .001503      | 053809     | 102996       | 102045   | 034149  | .069128          |
| 5         | 006462       | 043296     | 012322       | 060326   | 008522  | .016676          |
| 6         | 002583       | .025374    | .053867      | .014011  | 009377  | 007718           |
| 7         | 035964       | .039683    | .101061      | .078614  | .016950 | 039392           |
| 8         | 011780       | .072979    | .135887      | .102884  | 029903  | 074179           |
| 9         | .026531      | .102800    | .167867      | • 069352 | 065249  | 117713           |
| 10        | .035634      | .122543    | .188232      | .022247  | 084267  | 102965           |
| 11        | .080705      | .141087    | .213701      | 024487   | 107548  | 094964           |
| 12        | .104523      | . 125989   | .191898      | 060578   | 086312  | 069043           |
| 13        | .068569      | .143499    | .160258      | 083634   | 083562  | 060459           |
| 14        | .017256      | .136784    | .159469      | 063744   | 016326  | 083346           |
| 15        | .025505      | .112549    | .102337      | 029251   | .019569 | 070070           |
| 16        | .033210      | .099942    | .057362      | .009188  | .046972 | 105201           |
| 17        | 034158       | .054564    | 016821       | .088877  | .090835 | 056708           |
| 18        | 059428       | 004865     | 046830       | .089230  | .109915 | 046055           |
| 19        | 100553       | 040536     | 054873       | .097297  | .162248 | 011302           |
| 20        | 110558       | 019306     | 022518       | .044551  | .174417 | .001933          |
| 21        | 068061       | 043840     | .000185      | 030065   | .128535 | .025020          |
| 22        | 017600       | 001085     | .056175      | 078195   | .101257 | .018907          |
| 23        | .022002      | 007359     | .131713      | 111932   | .046034 | .004943          |
| 24        | .017641      | 008888     | .145203      | 049625   | .009064 | .020321          |
| 25        | .019226      | 033579     | .151087      | 022357   | 000637  | .011552          |
| 26        | 014287       | .014385    | .120522      | .021493  | .017102 | 016975           |
| 27        | 065999       | 024879     | .082794      | .072618  | .045587 | 022875           |
| 28        | 057842       | 040112     | .018761      | .056026  | .005214 | .036891          |
| 29        | .000912      | 052138     | .001165      | .016371  | .001400 | .050446          |
| 30        | .029533      | 016895     | .032513      | 035035   | 029862  | .000384          |
| COSPECTRU | ч            |            |              |          |         |                  |
| K         | U,V          | U,W        | U <b>,</b> T | V,W      | V,T     | W,T              |
|           | 106-01       | 10E-01     | 10E-02       | 10E-02   | 10E-03  | 10E-03           |
| 0         | 000547       | 012132     | 036819       | .019790  | 048922  | .065121          |
| 1         | 008345       | 160057     | 292380       | .010929  | 536799  | .628600          |
| 2         | 081394       | 214552     | 320942       | 046665   | .116189 | .744144          |
| 3         | 123582       | 205363     | 345974       | 040672   | .800579 | .689310          |
| 4         | .007377      | 097418     | 225770       | 238531   | .162010 | .396900          |
| 5         | .076512      | 048343     | 096723       | 287972   | 364260  | .246719          |
| 6         | 020216       | 060618     | 097817       | .524932  | .027254 | .145100          |
| 7         | 057200       | 051452     | 090180       | .955398  | .258563 | .036835          |
| 8         | 043835       | 035307     | 054940       | . 476052 | .289597 | .063508          |
| 9-11      | 004580       | 038195     | 041307       | .065661  | .143581 | .098844          |
| 12-14     | 000584       | 029908     | 028625       | 183177   | 020326  | .030834          |
| 15-21     | .007356      | 024226     | 019093       | 104497   | 022392  | .075032          |
| 22-30     | 008096       | 040505     | 020590       | .007506  | 024807  | .083289          |
|           |              |            |              |          |         |                  |

RUN NO. 84B 16M 11-06-62 1401-1513 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

| HOWINGIELD GONDANIONE COTAMINIC | NORMALIZED | QUADRATURE | COVARIANCE |
|---------------------------------|------------|------------|------------|
|---------------------------------|------------|------------|------------|

| M          | U•V      | U,W                                     | U <sub>1</sub> T                        | V,W      | V,T                                     | W,T              |
|------------|----------|---|---|----------|---|------------------|
|            | 0 5/022  | 0.05743                                 | 0.35349                                 | 0 22404  | 0 22044                                 | 0 10011          |
|            | 0.54922  | 0.25742                                 | 0.25368                                 | 0.23406  | 0.23066                                 | 0.10811          |
|            | 10E 00   | 10E 00                                  | 10E-01                                  | 10E 00   | 10E-01                                  | 10E-01           |
|            | - 021080 | - 045544                                | 092461                                  | 008442   | .013120                                 | .004865          |
| 1          | 021089   | 065544                                  |   | 038056   | .021019                                 | .065730          |
| 2          | 017919   | 006060                                  | 113278                                  |          | 024646                                  | .026133          |
|            | 016176   | -,038065                                | 085340                                  | 033246   |   |                  |
| 4<br>5     | 037971   | ··· 049927                              | 092791                                  | .004165  | 055739                                  | 036822<br>025623 |
| ,          | 004827   | 078634                                  | 093867                                  | .054619  | 046678                                  | 023023           |
| 6          | 024740   | 046889                                  | 071210                                  | 004551   | 054548                                  | 045724           |
| 7          | 010261   | 093027                                  | 080989                                  | .014554  | 053163                                  | 032513           |
| 8          | 044864   | 063986                                  | 041025                                  | .001422  | 088894                                  | 013185           |
| 9          | 017738   | .030869                                 | 069950                                  | 034798   | 034388                                  | .077928          |
| 10         | .034487  | .055290                                 | 058822                                  | 058358   | .045623                                 | .049196          |
| 10         | • 037707 | • 0332 70                               |   | . 070770 | ********                                | 1047170          |
| 11         | .097288  | .096538                                 | 043313                                  | .015995  | .122935                                 | .117238          |
| 12         | .083239  | .058306                                 | 010335                                  | .014280  | .080230                                 | .092053          |
| 13         | .033027  | .052140                                 | .011331                                 | 021211   | .026982                                 | .031966          |
| 14         | .025252  | .048016                                 | .004462                                 | 003175   | .009861                                 | .032991          |
| 15         | .027908  | .016657                                 | .008232                                 | .058982  | .004461                                 | .027234          |
| .,         | •021700  | *010037                                 | *000232                                 | .070702  | *********                               | .021231          |
| 16         | 008455   | .024827                                 | .014372                                 | .056214  | 015811                                  | .027790          |
| 17         | .010496  | .046162                                 | .010140                                 | .055383  | 000889                                  | .027225          |
| 18         | .046639  | .053870                                 | 021811                                  | .049601  | .053508                                 | .080339          |
| 19         | .057935  | .031273                                 | .009112                                 | .017328  | .093023                                 | .011966          |
| 20         | .073359  | 008067                                  | .014822                                 | .053716  | .099623                                 | 020227           |
| 20         | •013337  | • | *******                                 |          | ,                                       |                  |
| 21         | .062023  | 021288                                  | .055070                                 | .028693  | .043014                                 | 046546           |
| 22         | .007294  | 056790                                  | .055212                                 | .002292  | .007931                                 | 088923           |
| 23         | 029673   | 072145                                  | .073183                                 | 007644   | 001120                                  | 140839           |
| 24         | 006580   | 107267                                  | .053003                                 | .031944  | .003782                                 | 108739           |
| 25         | .001332  | 128728                                  | .035362                                 | .053787  | 028427                                  | 118491           |
|            | .001332  | *************************************** | *************************************** |          | *************************************** | *******          |
| 26         | 017281   | 073314                                  | .010596                                 | .034599  | 044597                                  | 091936           |
| 27         | 038778   | 008601                                  | 012341                                  | .009033  | 019223                                  | 015609           |
| 28         | .014064  | .042612                                 | .014443                                 | 034649   | .033605                                 | .004447          |
| 29         | .000191  | .044249                                 | .015342                                 | 083106   | .026429                                 | .048476          |
| 30         | 042692   | .063053                                 | .027185                                 | 102686   | 039074                                  | .094387          |
|            |          |   |   |          |   |                  |
| QUADRATURE | SPECTRUM |   |   |          |   |                  |
|            |          |   |   |          |   | , _              |
| K          | U•V      | U,W                                     | U, T                                    | V,W      | V,T                                     | W, T             |
|            | 10E-02   | 10E-02                                  | 10E-03                                  | 10E-02   | 10E-03                                  | 10E-03           |
|            |          |   |   |          |   |                  |
| 1          | .918301  | .140983                                 | 881552                                  | . 197405 | .159286                                 | .254172          |
| 2          | 231758   | 247414                                  | 973171                                  | 135461   | 305403                                  | .112650          |
| 3          | 869047   | 831169                                  | 802444                                  | 107816   | 504148                                  | 174844           |
| 4          | 665698   | 593911                                  | 521627                                  | .138826  | 325365                                  | 137929           |
| 5          | 313719   | 152946                                  | 315635                                  | .078759  | 101719                                  | .008762          |
|            |          |   |   |          |   |                  |
| 6          | . 369147 | .142783                                 | 197205                                  | 180602   | . 365563                                | .105421          |
| 7          | .525892  | .390913                                 | 337066                                  | 254519   | • 542601                                | .255975          |
| 8          | 324087   | .130449                                 | 293486                                  | 203950   | .062381                                 | .173898          |
| 9-11       | 276368   | 190414                                  | 116631                                  | 120065   | 048441                                  | .018647          |
| 12-14      | .187049  | 002456                                  | 182617                                  | .019667  | .208139                                 | .014728          |
| 15.21      | 13/470   | _ 177011                                | - 043040                                | 070582   | - 052502                                | - 050135         |
| 15-21      | 134470   | 177832                                  | 063968                                  | .070582  | 052592                                  | 058135           |
| 22-30      | .091727  | 108577                                  | .018325                                 | .047418  | 007147                                  | 000121           |

RUN NO. 84B 16M 11-06-62 1401-1513 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

| NORMALIZ | ED A | UTOCOV | ARIA | NCE |
|----------|------|--------|------|-----|
|----------|------|--------|------|-----|

| M       | U        | ٧        | W        | Ţ        |
|---------|----------|----------|----------|----------|
|         | 0.60403  | 0.49938  | 0.10971  | 0.10654  |
|         | 10E 00   | 10E 00   | 10E 00   | 10E-02   |
| 0       | 1.000000 | 1.000000 | 1.000000 | 1.000000 |
| ì       | .620530  | -573545  | .233595  | -640875  |
| 2       | . 396164 | .225796  | .129875  | .434728  |
| 3       | -210431  | .085571  | .008921  | . 244954 |
| 4       | .081472  | .017367  | 091275   | .117942  |
| 5       | 029720   | 074949   | 091588   | .003635  |
| 6       | 143202   | 155487   | 100531   | 069835   |
| 7       | 182802   | 068303   | 043206   | 100351   |
| 8       | 223872   | 044719   | 085698   | 142099   |
| 9       | 227570   | 095690   | 047071   | 136640   |
| 10      | 231949   | 106678   | 089404   | 190084   |
| 11      | 267427   | 168009   | 070073   | 257834   |
| 12      | 249897   | 206378   | 112925   | 227294   |
| 13      | 202619   | 192479   | 164562   | 167640   |
| 14      | 191480   | 142090   | 130801   | 181908   |
| 15      | 105086   | 064360   | 097863   | 118272   |
| 16      | 032169   | 082505   | 063807   | 102065   |
| 17      | .079719  | 071239   | .028263  | 035871   |
| 18      | .105620  | .004156  | .097182  | 011624   |
| 19      | .086724  | .039276  | .017040  | 015934   |
| 20      | .032228  | 000515   | 031427   | 058600   |
| 21      | .003782  | 012979   | 015231   | 060486   |
| 22      | 076887   | .022625  | 037583   | 079595   |
| 23      | 122227   | .060221  | 017471   | 158257   |
| 24      | 136960   | .030557  | .008274  | 151984   |
| 25      | 088252   | .009715  | .099302  | 160459   |
| 26      | 066485   | 004986   | .026885  | 122402   |
| 27      | 015594   | .013245  | .076203  | 101275   |
| 28      | .024048  | 033489   | -134517  | 049909   |
| 29      | .054084  | 120711   | .126085  | 074941   |
| 30      | .029814  | 150543   | .000537  | 088992   |
| POWER S | SPECTRUM |          |          |          |
| K       | U        | ٧        | W        | τ        |
|         | 10E 00   | 10E-01   | 10E-02   | 10E-03   |
| 0       | .006876  | .068488  | .023085  | .023084  |
| 1       | .068907  | .506159  | .509328  | .173110  |
| 2       | .089572  | .593700  | .786074  | .172382  |
| 3       | .107814  | .620223  | .894924  | .168360  |
| 4       | .076604  | .429366  | .672957  | .116817  |
| 5       | .036257  | .338436  | .553716  | .064673  |
| 6       | .034635  | .369477  | .705991  | .059443  |
| 7       | .033619  | .373017  | .751063  | .056945  |
| 8       | .018359  | .290509  | .477565  | .041327  |
| 9-11    | .014567  | .144800  | .394579  | .022871  |
| 12-14   | .013358  | .158140  | .288009  | .021634  |
| 15-21   | .008668  | .106382  | .361209  | .014373  |
| 22-30   | .010328  | .071312  | .495161  | .017055  |

#### RUN NO. 84B 40M 11-06-62 1401-1513 EST

# GROSS STATISTICS

| 10 AS SC<br>NEAR NEUTRAL<br>LAND | WIND S<br>SIGMA<br>SIGMA | A 11.6 DEG                     | WIND DIRE<br>SOLAR RAC<br>NET RADIA |                                    |
|----------------------------------|--------------------------|--------------------------------|-------------------------------------|------------------------------------|
|                                  | WITH NO<br>RUNNING MEAN  | WITH 301 POINT<br>RUNNING MEAN | WITH 61 POINT<br>RUNNING MEAN       | 301 PT RUN MEAN<br>10 PT BLOCK AVG |
| VARIANCES                        |                          |                                |                                     |                                    |
| U                                | 0.15454E 01              | 0.90745E 00                    | 0.48181E-00                         | 0.69564E 00                        |
| V                                | 0.13192E 01              | 0.57493E 00                    | 0.38628E 00                         | 0.39941E-00                        |
| W                                | 0.33047E-00              | 0.30333E-00                    | 0. %031E-00                         | 0.16196E-00                        |
| T                                | 0.99064E-02              | 0.16021E-02                    | 0./5079F-03                         | 0.13259E-02                        |
| É                                | 0.15975E 01              | 0.89290E 00                    | 0.56421E 00                         |                                    |
| GUSTINESS RATIO                  | 5                        |                                |                                     |                                    |
| U                                | 0.22359                  | 0.17133                        | 0.12484                             | 0.15001                            |
| V                                | 0.20657                  | 0.13637                        | 0.11178                             | 0.11367                            |
| W                                | 0.10339                  | 0.09906                        | 0.09176                             | 0.07238                            |
| COVARIANCES                      |                          |                                |                                     |                                    |
| U,V                              | 0.10426E-00              | -0.99570E-02                   | 0.27054E-01                         | -0.22449E-01                       |
| U∙₩                              | -0.29215E-00             | -0.21559E-00                   | -0.11199E-00                        | -0.18392E-00                       |
| U,T                              | -0.85627E-01             | -0.24541E-01                   | -0.95952E-02                        | -0.22128E-01                       |
| V.₩                              | -0.15339E-01             | -0.39606E-01                   | -0.38256E-01                        | -0.28374E-01                       |
| V,T                              | -0.79338E-02             | 0.24478E-02                    | -0.47504E-03                        | 0.28342E-02                        |
| W <sub>2</sub> T                 | 0.13095E-01              | 0.79819E-02                    | 0.44190E-02                         | 0.660718-02                        |
| WE                               | 0.25180E-01              | 0.63317E-01                    | 0.45229E-0:                         |                                    |
| NORMALIZED COVA                  | RIANCES                  |                                |                                     |                                    |
| U,V                              | 0.07302                  | -0.01379                       | 0.06273                             | -0.04259                           |
| U.W                              | -0.40880                 | -0.41092                       | -0.31623                            | -0.54794                           |
| U,T                              | -0.69204                 | -0.64363                       | -0.50449                            | -0.72863                           |
| V.W                              | -0.02323                 | -0.09484                       | -0.12064                            | -0.11156                           |
| V • T                            | -0.06940                 | 0.08065                        | -0.02789                            | 0.12316                            |
| ₩.T                              | 0.22887                  | 0.36207                        | 0.31610                             | 0.45088                            |

RUN NO. 84B 40M 11-06-62 1401-1513 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| М  | U,V        | U,W     | U, T    | V, W     | ٧.٢     | ₩•T      |
|----|------------|---------|---------|----------|---------|----------|
|    | 0.43131    | 0.35410 | 0.19013 | 0.31710  | 0.17027 | 0.13979  |
|    | 10E 00     | 10E 00  | 10E-01  | 10E 00   | 10E-01  | 10E-01   |
| 0  | .062804    | 316314  | 504240  | 120435   | 027868  | .315998  |
| l  | .051945    | 301797  | 476020  | 109424   | 016262  | .300191  |
| 2  | .036327    | 264057  | 428317  | 095379   | .000858 | .260385  |
| 3  | .023337    | 221721  | 375674  | 082713   | .015883 | .214277  |
| 4  | .014897    | 184997  | 321986  | 070812   | .018792 | .170527  |
| 5  | .012073    | 145349  | 268672  | 056671   | .015159 | .130283  |
| 6  | .012067    | 105478  | 221206  | 044505   | .008432 | .094272  |
| 7  | .011318    | 073283  | 177103  | 033216   | .006865 | .059781  |
| 8  | .011424    | 043715  | 136747  | 019759   | .007242 | .037718  |
| 9  | .012084    | 013431  | 095173  | 004887   | .007813 | .021628  |
| 10 | .012014    | .012383 | 053826  | .010281  | .008979 | .008989  |
| 11 | .009562    | .028873 | 012480  | .018955  | .007414 | 002099   |
| 12 | .000228    | .039059 | .021324 | .019142  | .007114 | 015358   |
| 13 | 007811     | .043352 | .048296 | .018247  | .005158 | -,029794 |
| 14 | 011429     | .042435 | •075423 | .017745  | 000169  | 042211   |
| 15 | 015021     | .042203 | .095418 | .021892  | 006934  | 051565   |
| 16 | 017798     | .042696 | .111314 | • 025645 | 007235  | 055036   |
| 17 | 024739     | .043079 | .124318 | .023289  | 002767  | ~.058488 |
| 18 | 028761     | .051727 | .138416 | .028211  | .008713 | 064237   |
| 19 | 033145     | .063880 | .147442 | .031420  | .023367 | 068536   |
| 20 | 036229     | .067109 | .148076 | .035525  | .028509 | 065847   |
| 21 | 039505     | .078430 | .146694 | .042903  | .029693 | 062963   |
| 22 | 041998     | .088514 | .145037 | .047150  | .028900 | 068207   |
| 23 | 042285     | .096683 | -143710 | .047266  | .028230 | 076981   |
| 24 | 042125     | .098761 | •141277 | .048241  | .030002 | 083804   |
| 25 | 047581     | .099894 | .134732 | .051129  | .033881 | 082992   |
| 26 | 051233     | .094270 | .132796 | .058473  | .037923 | 081447   |
| 27 | 045260     | .089113 | .128134 | .065487  | .038432 | 078964   |
| 28 | 035603     | .081532 | .123453 | .060378  | .031754 | 075697   |
| 29 | 028679     | .075463 | .116400 | .047726  | .024686 | 072372   |
| 30 | 021778     | .071072 | .108912 | .037395  | .015945 | 070384   |
| 31 | 016000     | .063774 | .101314 | .031691  | .011074 | 070193   |
| 32 | 016360     | .057113 | .086535 | .025422  | .009773 | 066037   |
| 33 | 021089     | .052719 | .070506 | .020403  | .012072 | 061356   |
| 34 | 022141     | .045105 | .058033 | .015829  | .015863 | 057835   |
| 35 | 017767     | .032755 | .050311 | .009699  | .010392 | ~.053893 |
| 36 | 012808     | .020958 | .046533 | .001925  | 003020  | 040610   |
| 37 | 001629     | .009603 | .039716 | .000274  | 018152  | 032677   |
| 38 | . 008594   | .005612 | .030437 | .000374  | 027927  | 032705   |
| 39 | .013634    | .003912 | .023434 | 001298   | 030755  | 027695   |
| 40 | .017573    | .004448 | .020255 | 000890   | 028676  | 021651   |
| 41 | .021013    | .004624 | .021891 | .000878  | 023746  | 018074   |
| 42 | • 02 72 15 | .007616 | .024906 | .007116  | 020347  | 018808   |
| 43 | .0332?8    | .011859 | .026905 | .014146  | 019746  | 021220   |
| 44 | .040178    | .015741 | .034753 | .016759  | 018255  | 025686   |
| 45 | .054349    | .020217 | .032118 | ·C15361  | 018718  | 024032   |
| 46 | .068844    | .028199 | .027389 | .009874  | 020183  | 017800   |
| 47 | .071790    | .033311 | .022826 | .003779  | 019611  | 008034   |
| 48 | .066418    | .034029 | .026354 | 005961   | 017846  | .001292  |
| 49 | .061419    | .031915 | .027456 | 015417   | 022912  | .002785  |
| 50 | .056950    | .026195 | .026995 | 023058   | 032218  | .003299  |
| 51 | .056998    | .013921 | .021647 | 031837   | 038754  | .007246  |
| 52 | .060082    | .002338 | .022625 | 037305   | 041698  | .011584  |
| 53 | .064211    | 005403  | .018157 | 042811   | 048824  | .019288  |
| 54 | .060335    | 010381  | .013353 | 050813   | 055792  | .024680  |
| 55 | .051675    | 017206  | .009471 | 056021   | 060500  | .020304  |
| 56 | .043561    | 021916  | .008307 | 061599   | 063177  | .012493  |
| 57 | .035428    | 022215  | .006666 | 062317   | 060472  | .004247  |
| 58 | .025574    | 025296  | 000240  | 058926   | 050595  | .003597  |
| 59 | .016797    | 034255  | 007989  | 052360   | 039851  | 002221   |
| 60 | .009561    | 041109  | 013384  | 040319   | 032552  | 004267   |

RUN NC. 848 40M 11-06-62 1401-1513 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

|        | 40,0,,,,,          |                  |                  |                  |                  |                    |
|--------|--------------------|------------------|------------------|------------------|------------------|--------------------|
| н      | U,V                | U,W              | U, T             | ٧,٣              | <b>V</b> ,T      | W,T                |
|        | 0.43131            | 0.35410          | 0.19013          | 0.31710          | 0.17027          | 0.13979            |
|        | 10E 00             | 10E 00           | 10E-01           | 10E 00           | 10E-01           | 10E-01             |
| 1      | .014231            | 010041           | 020700           | 003929           | 002743           | .006175            |
| 2      | .030774            | 013491           | 035363           | 007489           | 001789           | .015990            |
| 3      | .043220            | 007898           | 046664           | 006722           | 005043           | .027330            |
| 4      | .042719            | 003950           | 057958           | 002129           | 007587           | .031720            |
| 5      | .041934            | 004524           | 068193           | 000860           | 013428           | .027824            |
|        |                    |                  |                  |                  |                  |                    |
| 6<br>7 | .038992<br>.037559 | 011700<br>023246 | 071699<br>073692 | 008699<br>016363 | 018653<br>019377 | .024432<br>.025595 |
| 8      | .037559            | 033716           | 074538           | 014178           | 014198           | .032595            |
| 9      | .029037            | 043160           | 077239           | 002859           | 009383           | .034806            |
| 10     | .031991            | 043374           | 080390           | .004753          | 008257           | .036876            |
| 11     | .039968            | 040171           | 088544           | .009267          | 002604           | .039023            |
| 12     | .044778            | 040738           | 094221           | .013202          | .005550          | .044306            |
| 13     | .046024            | 040995           | 101498           | .017022          | .010014          | .044810            |
| 14     | .052640            | 039543           | 103451           | .022615          | .012031          | .039930            |
|        | .060332            | 038422           | 098273           | .030021          | .014667          | .038508            |
| 15     |                    |                  |                  |                  |                  |                    |
| 16     | .066322            | 032644           | 095529           | . 036492         | .015460          | .033729            |
| 17     | .063628            | 035437           | 093906           | .030996          | .014756          | .018696            |
| 18     | .052976            | 040695           | 087516           | .024785          | .010683          | .009647            |
| 19     | .035796            | 044564           | 079250           | .028721          | .000462          | .009656            |
| 20     | .023118            | 043680           | 069977           | .028844          | 007988           | .012420            |
| 21     | .013610            | 029314           | 062582           | .032382          | 012475           | .016529            |
| 22     | .007771            | 015015           | 055840           | .034041          | 014405           | .017400            |
| 23     | .002797            | 007085           | 053308           | .035620          | 011210           | .021667            |
| 24     | 002718             | 012068           | 054113           | .034011          | 006204           | .026981            |
| 25     | 006153             | 021203           | 051443           | .030383          | 001768           | .029322            |
| 26     | 012523             | 029824           | 046168           | .025226          | .006243          | .021534            |
| 27     | 016380             | 030328           | 037401           | .019582          | .013901          | .012802            |
| 28     | 018292             | 022600           | 030498           | .013409          | .022666          | .008498            |
| 29     | 016932             | 011645           | 023895           | .011034          | .024242          | .011678            |
| 30     | 017366             | 002868           | 017396           | .005357          | .026615          | .013839            |
| 31     | 020782             | 000915           | 012729           | 002171           | .028681          | .019217            |
| 32     | 025172             | .005218          | 007261           | 012653           | .031194          | .018726            |
| 33     | 026246             | .009729          | 001897           | 020528           | .034122          | .015804            |
| 34     | 024887             | .011696          | .003898          | 025615           | .029073          | .004644            |
| 35     | 029870             | .010148          | .013690          | 027795           | .020134          | 009443             |
| 36     | 032563             | .008245          | .023873          | 027952           | .015277          | 020674             |
| 37     | 032975             | .000316          | .028606          | 028390           | .010130          | 029808             |
| 38     | 034117             | 005224           | .029188          | 025897           | .005828          | 035204             |
| 39     | 037371             | 001737           | .029591          | 018704           | 001298           | 035434             |
| 40     | 042342             | .008909          | .033923          | 014646           | 011457           | 035020             |
| 41     | 041658             | .015856          | .042665          | 013349           | 023117           | 036508             |
| 42     | 035662             | .016822          | .050869          | 013513           | 031703           | 039585             |
| 43     | 025829             | .019021          | .060352          | 014695           | 030076           | 042139             |
| 44     | 021743             | .019572          | .065634          | 017198           | 024649           | 043407             |
| 45     | 026452             | .025373          | .067547          | 030389           | 022561           | 040479             |
| 46     | 031133             | .032969          | .064751          | 041710           | 022228           | 036613             |
| 47     | 031599             | .043304          | .059790          | 039238           | 021084           | 024951             |
| 48     | 025085             | .050605          | .055202          | 031406           | 012536           | 013452             |
| 49     | 016793             | .060838          | .051696          | 022764           | 008413           | 008054             |
| 50     | 005061             | .061102          | .044797          | 017929           | 006936           | 005156             |
| 51     | .005254            | .057274          | .036409          | 017241           | 004422           | .000021            |
| 52     | .011102            | .050452          | .030382          | 015741           | 003822           | .003602            |
| 53     | .016165            | .048320          | .027743          | 011191           | 001455           | .003852            |
| 54     | .020268            | .050204          | .026513          | 008691           | .002423          | .008335            |
| 55     | .020088            | .050085          | .025627          | 005403           | .003911          | .018418            |
| 56     | .019380            | .041964          | .023020          | 000005           | 000753           | .022484            |
| 57     | .017178            | .029871          | .019004          | .007607          | 009668           | .023618            |
| 58     | .017759            | .018929          | .017065          | .020655          | 020286           | .018813            |
| 59     | .016034            | .010105          | .012975          | .029920          | 029542           | .011697            |
| 60     | .013531            | .003639          | .004801          | .029712          | 032962           | .007965            |
|        | ******             |                  | 100.001          |                  |                  | . 301 707          |

RUN NC. 84B 40M 11-06-62 1401-1513 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| M        | U                  | V                  | H                  | Ţ                  |
|----------|--------------------|--------------------|--------------------|--------------------|
|          | 0.48162<br>10E 00  | 0.38625<br>10E 00  | 0.26034<br>10E 00  | 0.75060<br>10E-03  |
| 0        | 1.000000           | 1.000000           | 1.000000           | 1.000000           |
| l        | . 844852           | .848599            | .792734            | .875395            |
| 2        | •668800<br>•525644 | .649306<br>.494502 | .543322<br>.366451 | •727880<br>•594876 |
| 4        | .411626            | .385976            | .244287            | .484716            |
| 5<br>6   | .325820<br>.257596 | .296256<br>.215208 | .145643            | .393692<br>.308919 |
| 7        | .195161            | .141650            | .026276            | .224661            |
| 8        | •140303<br>•089860 | .075365<br>.018873 | 011286<br>037510   | .147895<br>.078586 |
| 10       | .042068            | 030514             | 054636             | .022300            |
| 11<br>12 | 001882<br>041812   | 070103<br>101019   | 067450<br>085945   | 024784<br>070335   |
| 13       | 071142             | 127180             | 115391             | 110663             |
| 14       | 104004             | 150761             | 141870             | 147451             |
| 15<br>16 | 129951<br>160532   | 162873<br>168023   | 151337<br>155798   | 167500<br>182472   |
| 17       | 182763             | 174055             | 151930             | 197087             |
| 18       | 199330             | 186232             | 149707             | 216089             |
| 19       | 216474             | 209333             | 148807             | 228832             |
| 20<br>21 | 231945<br>238859   | 233467<br>252414   | 144376<br>150579   | 230648<br>228315   |
| 22       | 242192             | 263133             | 154056             | 225582             |
| 23       | 244169             | 269224             | 155339             | 226316             |
| 24<br>25 | 245156<br>245851   | 281037<br>298034   | 166563<br>179343   | 222686<br>219545   |
| 26       | 239629             | 310045             | 183926             | 218032             |
| 27       | 223974             | 302401             | 179649             | 214312             |
| 28<br>29 | 204905<br>184701   | 281775<br>248805   | 183145<br>173490   | 208583<br>199760   |
| 30       | 164674             | 203004             | 146174             | 181644             |
| 31<br>32 | 135680<br>104293   | 149646<br>100347   | 099387<br>071344   | 156259<br>133944   |
| 33       | 086580             | 057074             | 049404             | 115953             |
| 34       | 075505             | 023980             | 029952             | 099589             |
| 35       | 061503             | .008722            | 013119             | 082393             |
| 36<br>37 | 050979<br>038787   | .043441<br>.072821 | .003909<br>.018967 | 061924<br>043317   |
| 38       | 026020             | .095871            | .030891            | 031539             |
| 39       | 023269             | .103511            | .029931            | 022798             |
| 40<br>41 | 036698<br>050640   | .100194<br>.092971 | .024259<br>.017058 | 018984<br>017014   |
| 42       | 047374             | .091356            | .013016            | 013239             |
| 43       | 042787             | .095507            | .007644            | 012614             |
| 44       | 043263             | .096401            | 006160             | 014366             |
| 45<br>46 | 050058<br>058027   | .087773<br>.081149 | 017190<br>019794   | 013359<br>009628   |
| 47       | 054102             | .070709            | .001654            | 006394             |
| 48       | 049902             | .054371            | .022186            | 009779             |
| 49       | 037969             | .041446            | .032308            | 010244             |
| 50<br>51 | 025835<br>019133   | .035873<br>.031619 | .031524<br>.041628 | 012971<br>015986   |
| 52       | 013726             | .025123            | .051947            | 019243             |
| 53       | 001525             | .015511            | .058457            | 018604             |
| 54       | .004236            | .005622            | .062549            | 021171             |
| 55<br>56 | .007959<br>.016184 | .002638<br>002789  | .047533<br>.031469 | 024101<br>030430   |
| 57       | .029488            | 011855             | .013818            | 037308             |
| 58       | .042067            | 028335             | .010199            | 034700             |
| 60       | .055966            | 043912<br>054201   | .000977<br>004923  | 031950<br>031608   |
|          |                    | TOSTEVE            |                    | 1031000            |

RUN NO. 848 40M 11-06-62 1401-1513 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| CO | SP | EC | TR | UM |
|----|----|----|----|----|
|----|----|----|----|----|

| K         | U.V         | U,W      | U, T               | V, W               | V,T                | W <b>,</b> T             |
|-----------|-------------|----------|--------------------|--------------------|--------------------|--------------------------|
|           | 10E-0?      | 10E-01   | 10E-02             | 10E-02             | 105.03             |                          |
| 0         | 080752      |          |                    | 106-02             | 10E-03             | 10E-03                   |
| ĭ         |             | 024362   | 030782             | 004325             | .070508            | .095655                  |
| ž         | .056083     | 213650   | 217903             | 601613             | .156017            | .851380                  |
| 3         | • 703627    | 233636   | 221660             | 904182             | 078020             | . 909175                 |
| 4         | .694165     | 214396   | 201779             | 826133             | 097860             | . 783964                 |
|           | .086432     | 131868   | 123119             | 423478             | .056693            | • 498458                 |
| 5<br>6    | 001620      | 085522   | 064556             | 227180             | -065525            | .357343                  |
| 7-8       | .008136     | 086265   | 041412             | 284435             | 030889             | • 292231                 |
| 9-11      | . 107370    | 056371   | 021209             | 185225             | 064790             | .187273                  |
| 12-15     | .100243     | 010928   | 013411             | 013665             | 022995             | .108375                  |
| 12-15     | .095248     | 009422   | 007694             | 022356             | 036849             | .041352                  |
| 16-20     | .035420     | 005121   | 002843             | 037442             | 027610             |                          |
| 21-27     | .027027     | 002091   | 001513             | 001170             |                    | .013343                  |
| 28-36     | .007644     | 001472   | 001205             | 013175             | 012598             | .011510                  |
| 37-47     | .007655     | .000862  | 000644             |                    | 002261             | -001716                  |
| 48-60     | .003341     | 000034   | 000427             | 003436             | 001416             | • 000932                 |
|           |             |          | -1000427           | 005399             | 002493             | 000875                   |
| QUADRATU  | RE SPECTRUM |          |                    |                    |                    |                          |
| K         | U,V         |          |                    |                    |                    |                          |
| -         | 0,4         | U, W     | U, T               | V, W               | V, T               | W, T                     |
|           | 10E-02      | 10E-02   | 10E-03             | 108-02             | 10E-03             | 10E-03                   |
| 1         | • 521485    | 709203   | 933422             | .327968            | 070/07             |                          |
| 2         | • 957075    | 648693   | 854863             |                    | .070407            | -231406                  |
| 3         | .830222     | 304530   | 465561             | -338550            | 000841             | .244043                  |
| 4         | .231695     | 066787   | 131939             | 001265             | 083775             | <ul><li>129978</li></ul> |
| 5         | 012823      | .036505  | 076351             | 285844             | 022029             | .054259                  |
| ,         |             | .030,05  | 010351             | 189364             | 000297             | .088436                  |
| 6         | 062548      | .056302  | 014229             | ~.037406           | 114933             |                          |
| 7-8       | .155072     | • 075317 | 025567             | 041796             | 045540             | -019320                  |
| 9-11      | .203825     | .026628  | 057351             | .040329            |                    | 019389                   |
| 12-15     | .008399     | 048729   | 001688             | •002024            | .038473            | .022939                  |
| 16-20     | .001669     | 048741   | .002905            | 023613             | .004920<br>.001943 | .009764<br>.003183       |
| 21-27     | 003104      |          |                    |                    | ,                  | •003103                  |
| 28-36     | .003194     | 002262   | 005384             | 009166             | 005753             | 010574                   |
| 37-47     | 015386      | 003793   | 004940             | .008200            | .001835            | 001266                   |
|           | 004395      | .002108  | 000120             | .001662            | 002918             |                          |
| 48-6C     | •005751     | •000922  | 000764             | .000153            | 001817             | .000304<br>000166        |
| POWER SPE | CTRUM       |          |                    |                    |                    |                          |
| K         |             |          |                    |                    |                    |                          |
| •         | U           | ٧        | W                  | T                  |                    |                          |
|           | 10E-01      | 10E-01   | 10E-01             | 10E-03             |                    |                          |
| 0         | .093093     | .043925  | 017000             |                    |                    |                          |
| 1         | .769887     | • 448336 | .017289            | -017061            |                    |                          |
| 2         | . 840525    |          | .224439            | .128221            |                    |                          |
| 3         | . 790549    | -639574  | •311521            | .138839            |                    |                          |
| 4         |             | -684710  | •336929            | . 132364           |                    |                          |
|           | . 489227    | .371603  | .233815            | .084991            |                    |                          |
| 5         | . 266656    | .215114  | -170889            | 053301             |                    |                          |
| 6         | -225158     | . 257514 | -174185            | .053381            |                    |                          |
| 7-8       | .187801     | .181387  |                    | .041371            |                    |                          |
| 9-11      | -120973     | .088993  | •129028            | -025221            |                    |                          |
| 12-15     | .079055     | .066288  | .095466<br>.059961 | •015276<br>•009221 |                    |                          |
| 16-20     | • 050539    |          |                    |                    |                    |                          |
| 21-27     |             | .043546  | -035861            | .006061            |                    |                          |
| 28-36     | • 030020    | .028248  | .024436            | .003771            |                    |                          |
| 37-47     | .017940     | .015354  | .016226            | .00215B            |                    |                          |
|           | .014503     | .008626  | .008655            | .001672            |                    |                          |
| 48-6C     | • 009849    | .006172  | .006283            | .001273            |                    |                          |

RUN NO. 848 40M 11-06-62 1401-1513 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

| M        | U•V              | U, W             | U,T                | V, W      | V,T                | WeT                                  |
|----------|------------------|------------------|--------------------|-----------|--------------------|--------------------------------------|
|          | 0.52706          | 0.33591          | 0.30386            | 0.25421   | 0.22995            | 0.14656                              |
|          | 10E 00           | 10E 00           | 10E-01             | 10E 00    | 10E-01             | 10E-01                               |
| •        | ~ 043503         | - 547515         | - 730330           | 111410    | 122250             | 450017                               |
| o,       | 042593           | 547515           | 728230             | 111618    | .123250            | .450817                              |
| 1        | 066681           | 339972           | 525391             | 021489    | .132155            | .255138                              |
| 2        | 088182           | 188527           | 332517             | .037763   | .121517            | .126013                              |
| 3        | 058685           | 089192           | 183878             | .059410   | .071306            | .041000                              |
| 4        | 023270           | 044450           | 066143             | .051846   | .006339            | .021578                              |
| 5        | .012563          | .013634          | .028348            | .029845   | 034387             | .013147                              |
| 6        | 020232           | .025072          | .074408            | .006227   | 063747             | 018511                               |
| 7        | 043568           | .050521          | .103695            | .042988   | 052801             | .003352                              |
| 8        | .008754          | .075390          | .120513            | .049320   | 076779             | 025002                               |
| 9        | .045911          | .108076          | .108563            | .038642   | 104788             | 070232                               |
| 10       | .093064          | .078758          | .133770            | 058082    | 153084             | 084588                               |
| ii       | .117938          | .095541          | .179930            | 068941    | 142744             | 070829                               |
| 12       | .130498          | .086138          | .204783            | 032627    | 116921             | 031538                               |
| 13       | .126742          | .123770          | -209411            | 045553    | 093904             | 064088                               |
| 14       | .133889          | .135074          | .169349            | 058756    | 092745             | 084460                               |
| 17       | •133009          | .135074          | .107377            | 036738    | 072743             | 004460                               |
| 15       | .116184          | .136201          | .098668            | 042971    | 060652             | 063091                               |
| 16       | .032464          | .095075          | .063495            | 015742    | .034534            | 088788                               |
| 17       | 004996           | .092840          | .036040            | 034819    | .083157            | 097219                               |
| 18       | -,044883         | .074550          | 010283             | 005342    | .086350            | 119757                               |
| 19       | 047326           | .050875          | 006277             | 016968    | .078525            | 089942                               |
| 20       | 067323           | .036484          | .007194            | 001705    | .116221            | 037411                               |
| 21       | 110371           | .087239          | .052840            | .039668   | .143576            | 070371                               |
| 22       | 160096           | .043742          | .049947            | .050769   | .160646            | 027266                               |
| 23       | 116826           | 089261           | 007196             | 005528    | .135316            | .032393                              |
| 24       | 050583           | 108104           | 029887             | 020017    | .117946            | .066710                              |
| 36       | - 005034         | - 074403         | 000701             | .041211   | 005057             | 044510                               |
| 25       | 085826           | 076693           | .000791            |           | .095957            | .046518                              |
| 26<br>27 | 144630<br>095144 | 063562<br>091893 | .007799<br>012469  | .07998B   | .078183<br>.034462 | .023219<br>.090205                   |
|          | ~.033589         | 058494           |                    | 007053    | 002778             |                                      |
| 28       | •000429          | 041316           | .002140<br>.012595 | .043262   | 020218             | .063591                              |
| 29       | .000429          | 041316           | •012393            | •043202   | 020218             | .070416                              |
| 30       | .007896          | 024461           | .020064            | .013868   | 026792             | .035620                              |
| COSPECTA | EUM MUE          |                  |                    |           |                    |                                      |
| K        | U,V              | U•W              | U, T               | V.W       | V.T                | W.T                                  |
|          | 106-01           | 10E-01           | 10E-02             | 10E-02    | 108-02             | 10E-03                               |
| 0        | .012973          | 020010           | 040907             | .007132   | 007500             | .087552                              |
| 1        | 033532           | 250529           | 334796             | -268214   | 016530             | .922453                              |
| 2        | 206421           | 301767           | 385021             | .369329   | .087863            | .968789                              |
| 3        | 206914           | 252740           | 387341             | .077626   | .152594            | .708216                              |
| í        | .034361          | 159307           | 251771             | 409175    | -062418            | .489528                              |
| -        | \$03430£         | 125,301          | 127111             |           | 1002410            | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, |
| 5        | .076328          | 140488           | 153112             | 450888    | .006362            | .490536                              |
| 6        | 017662           | 115551           | 151362             | 260237    | .015326            | .339323                              |
| 7        | 052144           | 097321           | 152245             | 124527    | .022784            | .303902                              |
| 8        | 034754           | 067628           | 089742             | 084666    | .015735            | .370938                              |
| 9-11     | .009429          | 067208           | 040716             | 322521    | 003702             | .303045                              |
| 12-14    | .048773          | 034395           | 038804             | 169482    | 013027             | .139328                              |
| 15-21    | .004100          | 032269           | 026102             | 083755    | 002471             | .122077                              |
| 22-30    | .002998          | 025400           | 017994             | 091926    | 000149             | .120989                              |
| 22-30    | . 002770         | - 1027400        |                    | - 1071720 |                    | . 160707                             |

RUN NO. 848 40M 11-06-62 1401-1513 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

| H         | U, V        | U.W     | U,T          | V,W      | V , T   | W.T     |
|-----------|-------------|---------|--------------|----------|---------|---------|
|           | 0.52706     | 0.33591 | 0.30386      | 0.25421  | 0.22995 | 0.14656 |
|           | 10E 00      | 10E 00  | 10E-01       | 10E 00   | 10E-01  | 10E-01  |
|           | 100 00      | 100 00  |              |          |         |         |
| 1         | .012050     | 045772  | 084498       | 018316   | 008433  | .042519 |
| 2         | .012952     | 049875  | 122305       | .019850  | 017768  | .045255 |
| 3         | 035962      | 026225  | 108430       | 017182   | 023765  | .038744 |
| 4         | 080033      | 006765  | 064686       | 046006   | 069943  | 005668  |
| 5         | 075639      | .042092 | 047670       | 043970   | 079169  | .000186 |
|           |             |         |              |          |         |         |
| 6         | 055584      | 000152  | 039918       | .001443  | 083336  | 000381  |
| 7         | 026303      | 032058  | 035123       | .015332  | 048996  | 012661  |
| 8         | 030425      | 017534  | 035901       | 003642   | 021727  | .005480 |
| 9         | .014586     | .011172 | 048007       | .024420  | .016499 | .018579 |
| 10        | .048994     | .021401 | 044778       | 002028   | .047304 | .013208 |
| 11        | .073859     | .045821 | 011307       | 000738   | .059573 | .030076 |
| 12        | .088070     | .058303 | .007449      | 017267   | .056255 | .031917 |
| 13        | .044023     | .015155 | .029854      | .009221  | .002782 | 013814  |
| 14        | .019209     | 042368  | .019125      | .041688  | 038295  | 003169  |
| 15        | 002040      | 017694  | .006414      | .048164  | 039096  | 001574  |
|           |             |         |              |          |         |         |
| 16        | 000471      | .019306 | 012787       | .032577  | 019934  | .037239 |
| 17        | 013891      | .030161 | 014622       | 014651   | 023742  | .041668 |
| 18        | .042295     | .007628 | 016956       | .026900  | .001218 | .025151 |
| 19        | .108162     | .028879 | 003185       | .061030  | .104037 | .005052 |
| 20        | .115208     | 031970  | .006822      | .11805B  | .110059 | 036432  |
| 21        | .089971     | 021115  | .007666      | .132911  | .094800 | 018284  |
| 22        | .047986     | 051442  | .026782      | .060119  | .063635 | 049258  |
| 23        | .008774     | 011870  | .062653      | .019357  | .044952 | 025394  |
| 24        | 044445      | .019034 | .070895      | 054869   | 008782  | 034934  |
| 25        | 069884      | .032332 | .045919      | 073133   | 032969  | 004640  |
| 26        | 055192      | .041360 | .021149      | 055457   | 014089  | .018583 |
| 27        | 009672      | .014139 | .014875      | 050527   | .056685 | .031756 |
| 28        | .001442     | .029426 | 016636       | 046749   | .078458 | .066603 |
| 29        | 035283      | .021503 | 042942       | 043311   | .026040 | .062823 |
| 30        | 093262      | .008538 | 005928       | 063797   | 029931  | .050436 |
| QUADRATUE | RE SPECTRUM |         |              |          |         |         |
|           |             |         |              |          | 1.1. 12 |         |
| K         | U+V         | U, W    | U <b>, T</b> | V,W      | V, T    | W, T    |
|           | 10E-01      | 10E-02  | 10E-03       | 10E-02   | 10E-03  | 10E-03  |
|           |             |         |              |          |         |         |
| 1         | .069279     | .161408 | 696466       | . 293437 | 065148  | .144100 |
| 2         | 059799      | .024412 | 778761       | 198029   | 383728  | .091773 |
| 3         | 118061      | 207070  | 754558       | 231738   | 398021  | .008290 |
| 4         | 095475      | 302432  | 678440       | 022880   | 419734  | .044134 |
| 5         | 074770      | 187318  | 435023       | 191832   | 445552  | .098311 |
| 6         | .042614     | 122418  | 304369       | 074417   | .127213 | .070039 |
| 7         | .101115     | .007625 | 535097       | 009549   | .473057 | .158533 |
| 8         | .019695     | 177717  | 558660       | 040251   | .155115 | .178857 |
| 9-11      | .029835     | 426221  | 211923       | .167126  | .011140 | .049213 |
| 12-14     | .024468     | 030370  | 118137       | .055117  | 018438  | .040548 |
| 15-21     | 007767      | 021448  | .013379      | 113483   | 022929  | 009772  |
| 22-30     | 003106      | .050453 | 010321       | 057009   | .036276 | .033656 |
|           |             |         |              |          |         |         |

RUN NO. 84B 40M 11-06-62 1401-1513 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

| NURHALIZ | ED AUTOCOVARI     | ANGE              |                   |                   |
|----------|-------------------|-------------------|-------------------|-------------------|
| M        | U                 | V                 | W                 | Ť                 |
|          | 0.69646<br>10E 00 | 0.39886<br>10E 00 | 0.16202<br>10E 00 | 0.13257<br>10E-02 |
| 0        | 1.000000          | 1.000000          | 1.000000          | 1.000000          |
| 1        | .664209           | .539374           | .303044           | .679708           |
| 2        | .363480           | .248469           | .066158           | .449538           |
| 3        | .179712           | .119738           | 023366            | . 245685          |
| 4        | .038211           | .107256           | 011008            | .105123           |
| 5        | 066490            | .009467           | 021512            | .001165           |
| 6        | 085833            | 079774            | 045577            | 084336            |
| 7        | 123302            | 109789            | .001307           | 111754            |
| 8<br>9   | 146045<br>143411  | 131166<br>172784  | 065252<br>160750  | 151923<br>186848  |
| 10       | 164337            | 211990            | 119989            | 235387            |
| 11       | 240532            | 288983            | 088726            | 268906            |
| 12       | 239742            | 316178            | 040417            | 282671            |
| 13       | 244997            | 252259            | 112555            | 260643            |
| 14       | 223146            | 181776            | ~.092503          | 193504            |
| 15       | 160558            | 147207            | 130958            | 110617            |
| 16       | 111600            | 057825            | 054227            | 075275            |
| 17       | 095615            | 020467            | 069433            | 052565            |
| 18       | 029494            | 006810            | 126809            | 005865            |
| 19       | .027730           | .013461           | 079147            | 020129            |
| 20       | .027453           | .049258           | .001517           | 032157            |
| 21       | 043921            | .039921           | 089537            | 065100            |
| 22       | 047609            | .113846           | 027362            | 065190            |
| 23       | .016932           | . 142530          | .053413           | 011987            |
| 24       | .055123           | .131030           | .106983           | .012165           |
| 25       | .046959           | .086985           | .113326           | .005229           |
| 26       | .066609           | .010667           | .058739           | .003481           |
| 27       | .096341           | .000952           | .099019           | .018313           |
| 28       | .070426           | 011440            | .051546           | 004369            |
| 29       | .025486           | .002502           | .056707           | .010956           |
| 30       | 017889            | .001977           | 014868            | 009733            |
| POWER SP | ECTRUM            |                   |                   |                   |
| K        | υ                 | ٧                 | W                 | ī                 |
|          | 10E 00            | 10E-01            | 10E-01            | 10E-03            |
| 0        | .008517           | .032696           | .006339           | .024328           |
| ĭ        | .087482           | .386797           | .105160           | .201015           |
| 2        | .109415           | .575389           | .135671           | .229107           |
| 3        | .108753           | .614396           | .123251           | .229607           |
| .4       | .069851           | . 331934          | .093443           | .149163           |
| 5        | .048781           | .176493           | .087683           | .080795           |
| 6        | .050239           | .183378           | .072493           | .070144           |
| 7        | .047670           | .221917           | .074173           | .078700           |
| 8        | .032076           | .201829           | .080648           | .058840           |
| 9-11     | .019307           | .122000           | .085288           | .028700           |
| 12-14    | .014668           | .147147           | .050395           | .022850           |
| 15-21    | .010977           | .081984           | .054193           | .015976           |
| 22-30    | .006691           | .072421           | .056893           | .017580           |

RUN NO. 848 16M 11-06-62 1401-1513 EST RUN NO. 848 40M 11-06-62 1401-1513 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

#### COHERENCE WITH QUADRATURE

| K           | U        | V        | W       | T        |
|-------------|----------|----------|---------|----------|
|             | 10E 00   | 10E 00   | 10E 00  | 10E 00   |
| 0           | .686023  | .515622  | .598919 | .624534  |
| 1           | .594850  | -614170  | .501396 | .602799  |
| 2           | .446791  | .622022  | .490542 | .472289  |
| 1<br>2<br>3 | .314112  | -640454  | .494665 | .421382  |
| 4           | .232981  | .566889  | .513908 | .363793  |
| 5           | .124334  | .273099  | .504005 | . 304359 |
| 6           | .060482  | . 255707 | .418745 | .159617  |
| 7-8         | .053901  | .355798  | .375877 | .130203  |
| 9-11        | .108464  | .203710  | .266588 | .075351  |
| 12-15       | . 090254 | .242732  | .159476 | .167585  |
| 16-20       | .083003  | .130577  | .113585 | .139043  |
| 21-27       | .106256  | .061957  | .151725 | .145327  |
| 28-36       | .062684  | .101809  | .132446 | .106738  |
| 37-47       | .113486  | .114116  | .116430 | .108240  |
| 48-60       | .070389  | .111637  | -085940 | .158314  |

## 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

#### COHERENCE WITH QUADRATURE

| K           | U        | ٧       | W       | T       |
|-------------|----------|---------|---------|---------|
|             | 10E 00   | 10E 00  | 10E 00  | 10E 00  |
| 0           | .901448  | .890027 | .836600 | .933290 |
| 1           | .888130  | .903279 | .837261 | .930653 |
| 1<br>2<br>3 | .813832  | .880338 | .850066 | .886606 |
| 3           | .723051  | .842366 | .848361 | .817836 |
| 4           | .684799  | .721349 | .809741 | .790353 |
| 5           | .712350  | .610685 | .750483 | .753138 |
| 5<br>6<br>7 | .714413  | .659883 | .515926 | .639133 |
| 7           | .683840  | .675978 | .327931 | .711109 |
| 8           | .658958  | .658649 | .396197 | .722662 |
| 9-11        | . 494966 | .556341 | .482002 | .406636 |
| 12-14       | .362359  | .672848 | .519317 | .514269 |
| 15-21       | .260712  | .461126 | .491210 | .337127 |
| 22-30       | .238201  | .185759 | .592445 | .326829 |

#### RUN NO. 85A 16M 11-16-62 1116-1231 EST

#### GROSS STATISTICS

| CLEAR<br>UNSTABLE<br>LAND | WIND SIGMA SIGMA | A 14.5 DEG     | WIND DIRE<br>SOLAR RAD<br>NET RADIA | •               |
|---------------------------|------------------|----------------|-------------------------------------|-----------------|
|                           | WETH NO          | WITH 301 POINT | WITH 61 POINT                       | 301 PT RUN MEAN |
|                           | RUNNING MEAN     | RUNNING MEAN   | RUNNING MEAN                        | 10 PT BLOCK AVG |
| VARIANCES                 |                  |                |                                     |                 |
| U                         | 0.19752E 01      | 0.13530E 01    | 0.88334E 00                         | 0.92404E 00     |
| V                         | 0.32504E 01      | 0.16162E 01    | 0.94338E 00                         | 0.11123E 01     |
| W                         | 0.41325E-00      | 0.40754E-00    | 0.35494E-00                         | 0.15639E-00     |
| T                         | 0.37336E-00      | 0.65089E-01    | 0.29523E-01                         | 0.50658E-01     |
| E                         | 0.28195E 01      | 0.16885E 01    | 0.10908E 01                         |                 |
| GUSTINESS RATIO           | 05               |                |                                     |                 |
| บ                         | 0.20106          | 0.16641        | 0.13446                             | 0.13752         |
| V                         | 0.25793          | 0.18187        | 0.13895                             | 0.15088         |
| พ                         | 0.09197          | 0.09133        | 0.08523                             | 0.05657         |
| COVARIANCES               |                  |                |                                     |                 |
| U.V                       | -0.36480E-00     | 0.31049E-01    | -0.10946E-01                        | 0.31815E-01     |
| U.W                       | -0.30631E-00     | -0.26006E-00   | -0.19051E-00                        | -0.16165E-00    |
| U.T                       | 0.28693E-02      | -0.14224E-00   | -0.66063E-01                        | -0.11596E-00    |
| V.W                       | -0.24090E-01     | -0.22692E-01   | -0.98762E-02                        | -0.19737E-01    |
| V.T                       | -0.73655E 00     | -0.18365E-00   | -0.79710E-01                        | -0.14824E-00    |
| W.T                       | 0.74384E-01      | 0.58044E-01    | 0.32599E-01                         | 0.40961E-01     |
| WE                        | 0.73136E-01      | 0.10658E-00    | 0.79309E-01                         |                 |
| NORMALIZED COV            | ARIANCES         |                |                                     |                 |
| U,V                       | -0.14397         | 0.02100        | -0.01199                            | 0.03138         |
| U,H                       | -0.33904         | -0.35022       | -0.34023                            | -0.42523        |
| U,T                       | 0.00334          | -0.47932       | -0.40908                            | -0.53595        |
| V,M                       | -0.02079         | -0.02796       | -0.01707                            | -0.04732        |
| V,T                       | -0.66860         | -0.56623       | -0.47763                            | -0.62449        |
| M,T                       | 0.18937          | 0.35639        | 0.31845                             | 0.46020         |

RUN NO. 85A 16M 11-16-62 1116-1231 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| M        | U.V                | U, W               | U, T               | V, W               | V,T                | W, T             |
|----------|--------------------|--------------------|--------------------|--------------------|--------------------|------------------|
|          | 0.91308            | 0.56002            | 0.16153            | 0.57871            | 0.16692            | 0.10238          |
|          | 10E 00             | 10E 00           |
| 0        | 012039             | 340085             | 408970             | 017034             | 477575             | .318269          |
| 1        | 013178             | 292258             | 375589             | 023721             | 401002             | -283804          |
| 2        | 011594             | 225121             | 322782             | 029818             | 311438             | .222737          |
| 3        | 005498             | 159251             | 273309             | 025970             | 251063             | -166877          |
| 4        | 000240             | 107077             | 226731             | 013347             | 200408             | .114964          |
| 5        | 000895             | 075414             | 185859             | 002110             | 158163             | .073618          |
| 6        | .004202            | 050775             | 149254             | .005536            | 121485             | .045276          |
| 7<br>8   | .007978<br>.011445 | 031885<br>019175   | 123054<br>100778   | .018184            | 091169<br>068217   | .022228          |
| 9        | .013220            | 006012             | 075251             | .010244            | 043995             | .007191          |
| 10       | .015164            | .004532            | 050382             | .000659            | 026843             | .005449          |
| 11       | .016148            | .023591            | 025933             | 005991             | 009559             | 000829           |
| 12       | .011828            | .036219            | .000808            | 002061             | .009016            | 013112           |
| 13       | .009391            | .044634            | .023573            | 010010             | .023037            | 012743           |
| 14       | .009690            | .043211            | .040467            | 013223             | .035664            | 014196           |
| 15       | .008898            | .041480            | .052137            | 008893             | .054182            | 014957           |
| 16       | .008955            | .045363            | .063471            | 004575             | .071490            | 014605           |
| 17       | .007325            | .053097            | .075435            | 002094             | .085984            | 024514           |
| 18       | .000715            | .068359            | .087402            | .006579            | .107415            | 043408           |
| 19       | 004544             | .075129            | .094341            | .012261            | .125514            | 058236           |
| 20       | 004201             | .082162            | .097512            | .005010            | .136263            | 068263           |
| 21       | 007929             | .089730            | .107432            | 000225             | .142093            | 072938           |
| 22       | 013604             | .099032            | .119955            | 003327             | .140613            | 071159           |
| 23       | 018789             | .100649            | -130991            | .002424            | .135642            | 069226           |
| 24       | 021616             | .089983            | .131871            | •009987            | .128291            | 062154           |
| 25       | 021721             | .072210            | .124693            | .018519            | .114427            | 054967           |
| 26<br>27 | 020630<br>016544   | .057017<br>.048317 | .112729            | .017340<br>.012649 | .103879<br>.097538 | 055844<br>053974 |
| 28       | 009225             | .043510            | .088885            | 003957             | .094940            | 047351           |
| 29       | 003593             | .036437            | .078118            | 008773             | .085692            | 043558           |
| 30       | .004414            | .021636            | .067675            | 013381             | .067203            | 035271           |
| 31       | .016197            | .004865            | .055860            | 026065             | .052630            | 017867           |
| 32       | .021325            | 007093             | .044920            | 035533             | .044137            | 008329           |
| 33       | .016865            | 012856             | .038210            | 035368             | .031986            | 005549           |
| 34       | •010459            | 007286             | .034504            | 034787             | .022145            | 003010           |
| 35       | .007326            | 004403             | ,033691            | 022656             | .029130            | 001786           |
| 36       | .008122            | 002040             | .032346            | 001733             | .033212            | 005749           |
| 37       | .016302            | .000160            | •027549            | .018529            | .035812            | 020736           |
| 38<br>39 | .018771<br>.018803 | .005648            | .024949<br>.019762 | .033472<br>.047416 | .041324<br>.045609 | 030171<br>033776 |
|          |                    |                    |                    |                    |                    |                  |
| 40       | .015665            | -000403            | .016539            | .054746            | .046820            | 030004           |
| 41<br>42 | .015461<br>.012728 | 001277<br>001186   | .014925<br>.012875 | .052035<br>.046402 | .042370<br>.041160 | 023511<br>023217 |
| 43       | .002969            | .004642            | .019736            | .041993            | .043666            | 025594           |
| 44       | 005206             | .005514            | .027794            | .036731            | .041345            | 024262           |
| 45       | 009368             | .004800            | .033964            | .033349            | .033534            | 025472           |
| 46       | 017543             | .002952            | .044865            | .038428            | .026376            | 035182           |
| 47       | 028769             | 000695             | .060506            | .040853            | .017504            | 045113           |
| 48       | 030040             | 000032             | .068621            | .040524            | .005956            | 052315           |
| 49       | 022872             | .007617            | .073245            | .034816            | 004966             | 051338           |
| 50       | 012113             | .012070            | .071808            | .020085            | 015872             | 043681           |
| 51       | 006179             | .015938            | .072475            | .008344            | 023337             | 040254           |
| 52       | 003341             | .013960            | -068441            | 001222             | 025766             | 038854           |
| 53<br>54 | .000037<br>.003355 | .012293<br>.010723 | -055197            | 010769             | 033182<br>039745   | 027856<br>019351 |
|          |                    |                    | .039558            | 021015             |                    |                  |
| 55       | 000458             | .008507            | .032761            | 019604             | 040389             | 019939           |
| 56<br>57 | 009330<br>015597   | .008620<br>.007984 | .024794<br>.019204 | 017898<br>011723   | 040428<br>036770   | 014604<br>004713 |
| 58       | 013597             | .008065            | .015986            | 011723             | 034440             | .004413          |
| 59       | 013357             | .009133            | .013059            | 017542             | 031942             | .007126          |
| 60       | 016149             | .005743            | .010545            | 016174             | 028360             | 001222           |
| -        |                    |                    |                    |                    |                    |                  |

RUN NG. 85A 16M 11-16-62 1116-1231 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

#### NORMALIZED QUADRATURE COVARIANCE

| HOKHALIZED | QUADRATURE        | CHANTANCE        |                    |                    |   |   |
|------------|-------------------|------------------|--------------------|--------------------|---|---|
| H          | U,V               | U.W              | U,T                | V,W                | V, T                                    | W. T                                    |
|            |                   | •••              | •••                | •••                |   |   |
|            | 0.91308           | 0.56002          | 0.16153            | 0.57871            | 0.16692                                 | 0.10238                                 |
|            | 10E 00            | 10E 00           | 10E 00             | 10E 00             | 10E 00                                  | 10E 00                                  |
|            |                   |                  |                    |                    |   |   |
| 1          | .020838           | 059099           | 053013             | 005584             | 028136                                  | .011205                                 |
| 2          | .033419           | 092613<br>101095 | 087059<br>111154   | 004300             | 032528<br>027921                        | .019622                                 |
| 4          | .052934           | 094781           | 127216             | .001889<br>.009643 | 018055                                  | .033756                                 |
| 5          | .062036           | 085321           | 137242             | .016814            | 006962                                  | .039080                                 |
| -          | ************      |                  | *******            |                    | *************************************** | ********                                |
| 6          | .069415           | 068013           | 141533             | .028893            | .004179                                 | .042891                                 |
| 7          | .073761           | 057005           | 138528             | .037066            | .009425                                 | .042829                                 |
| 8          | .072828           | 053631           | 130929             | .040240            | .008446                                 | .045305                                 |
| 9          | .073101           | 041411           | 123599             | .036260            | .006735                                 | .051801                                 |
| 10         | .066646           | 026324           | 110894             | .020687            | .001232                                 | .047455                                 |
| 11         | .057267           | 010287           | 095125             | .009493            | 009852                                  | .042954                                 |
| 12         | .052649           | .006987          | 082609             | 004277             | 019622                                  | .038032                                 |
| 13         | .049178           | .017814          | 074958             | 014748             | 024843                                  | .037519                                 |
| 14         | .047672           | .022125          | 070790             | 013918             | 026520                                  | .038762                                 |
| 15         | .048922           | .008521          | 066009             | 008301             | 024139                                  | .035668                                 |
|            |                   |                  |                    |                    |   |   |
| 16         | .049398           | 000236           | 057984             | 000320             | 017374                                  | .022971                                 |
| 17         | .046246           | 003457           | 050257             | .004859            | 009200                                  | .015373                                 |
| 18         | .043143           | 005613           | 044938             | • 009002           | .000325                                 | .012256                                 |
| 19         | .036698           | .000880          | 040419             | -010536            | •002280                                 | .009166                                 |
| 20         | .028712           | .008531          | 032575             | .010877            | .002280                                 | .001614                                 |
| 21         | .014629           | .010406          | 020901             | .001578            | .000533                                 | 010418                                  |
| 22         | .002789           | .007976          | 013007             | 012925             | 005101                                  | 022020                                  |
| 23         | 002050            | .011898          | 003842             | 011943             | 004976                                  | 027018                                  |
| 24         | 005235            | .011756          | .009395            | 003531             | 006469                                  | 032455                                  |
| 25         | 015102            | .008103          | .025882            | 000027             | 002665                                  | 041353                                  |
|            |                   |                  |                    |                    |   |   |
| 26         | 022857            | 000926           | .038977            | 006500             | .004757                                 | 055309                                  |
| 27<br>28   | 024084<br>024504  | 001925<br>002872 | .046711<br>.052385 | 007853<br>005380   | .012335<br>.016555                      | 061347<br>056500                        |
| 29         | 026985            | .000294          | .054250            | 008690             | .015076                                 | 048414                                  |
| 30         | 026284            | 005555           | .049402            | 009102             | .011528                                 | 036580                                  |
|            |                   | •••••            |                    |                    |   | • |
| 31         | 020039            | 006625           | .039626            | 010240             | .003261                                 | 024959                                  |
| 32         | 011211            | 014476           | .022910            | 007792             | .007770                                 | 006832                                  |
| 33         | .001053           | 013011           | .005265            | 000012             | .010133                                 | .010724                                 |
| 34         | .005333           | 002188           | 001674             | .008634            | .009695                                 | .025250                                 |
| 35         | .007654           | 000518           | 005895             | .013830            | .002790                                 | .033905                                 |
| 36         | .008846           | 005396           | 010204             | .006901            | .000041                                 | .032372                                 |
| 37         | .012964           | 011279           | 019459             | .006028            | 000431                                  | .028721                                 |
| 38         | .017331           | 011694           | 026877             | .011291            | 002931                                  | .024466                                 |
| 39         | .020902           | 010103           | 031379             | .012764            | 002598                                  | .018188                                 |
| 40         | .016230           | 012197           | 033203             | .014247            | 002725                                  | .012090                                 |
|            | 010517            | 01/077           | 020541             | 000015             | 000570                                  | 011040                                  |
| 41         | .010517           | 014077           | 030561             | .022865            | 002572                                  | .011840                                 |
| 42<br>43   | .001025<br>009352 | 016274<br>017267 | 027327<br>029423   | .029830<br>.031287 | 002589<br>007811                        | .013961<br>.015789                      |
| 44         | 019066            | 015931           | 034515             | .014961            | 016952                                  | .009593                                 |
| 45         | 031646            | 019599           | 036091             | 004075             | 022972                                  | .003823                                 |
|            |                   |                  |                    |                    |   |   |
| 46         | 037841            | 021936           | 032402             | 019070             | 022031                                  | 002226                                  |
| 47         | 036871            | 021336           | 025942             | 031395             | 016031                                  | 011897                                  |
| 48         | 034970            | 017784           | 018045             | 033648             | 008654                                  | 011595                                  |
| 49         | 030785            | 011526           | 007331             | 033763             | 003699                                  | 011213                                  |
| 50         | 028492            | 004155           | .004744            | 024873             | .001252                                 | 015617                                  |
| 51         | 028365            | 000390           | .011790            | 013438             | .003512                                 | 019717                                  |
| 52         | 023240            | .003677          | .014625            | 007160             | 001677                                  | 024581                                  |
| 53         | 016840            | .003724          | .012484            | 006102             | 009782                                  | 024839                                  |
| 54         | 014755            | .001572          | .010141            | 010515             | 015713                                  | 023005                                  |
| 55         | 013754            | .002967          | -005828            | 011560             | 015204                                  | 019483                                  |
|            |                   |                  |                    |                    |   |   |
|            | 016638            | .001391          | .002617            | 015641             | 011856                                  | 016986                                  |
|            | 016164            | 004055           | .000700            | 023515             | 011620                                  | 021985                                  |
| 58<br>59   | 010203<br>.000286 | 009079<br>010585 | 002871<br>007567   | 024975<br>023102   | 008686<br>006722                        | 024802<br>025409                        |
| 60         | .009483           | 003711           | 004491             | 024610             | 002134                                  | 025757                                  |
| -          |                   |                  |                    |                    |   | -UE2121                                 |

RUN NO. 85A 16M 11-16-62 1116-1231 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| M   | U                  | V                  | W                  | T                  |
|-----|--------------------|--------------------|--------------------|--------------------|
|     | 0.88358            | 0.94357            | 0.35494            | 0.29529            |
|     | 10E 00             | 10E 00             | 106 00             | 10E-01             |
| 0   | 1.000000           | 1.000000           | 1.000000           | 1.000000           |
| ì   | .840148            | .800466            | .681453            | .848111            |
|     |                    | .578863            |                    |                    |
| 2   | .654593            |                    | . 362334           | .663062            |
| 3   | •511460<br>•396569 | .428668<br>.317561 | •174160<br>•066770 | •522257<br>•408932 |
| •   | *370707            | *311701            | • 000110           | • 400732           |
| 5   | .298671            | -230042            | .010027            | .317128            |
| 6   | .213681            | .165366            | 037562             | .240676            |
| 7   | .151287            | .116473            | 057622             | .179615            |
| 8   | .097795            | .075604            | 063419             | .133310            |
| 9   | .040342            | .036182            | 064681             | .093932            |
| 10  | 017072             | .009591            | 068459             | .054918            |
| 11  | 064427             | 011003             | 083967             | .017792            |
| 12  | 102211             | 043877             | 073095             | 018256             |
| 13  | 122966             | 078228             | 070595             | 044217             |
| 14  | 145837             | 110087             | 068323             | 065820             |
| 15  | 169220             | 145740             | 053628             | 088364             |
| 16  | 192389             | 172171             | 053551             | 111713             |
| 17  | 205366             | 180078             | 067308             | 135550             |
| 18  | 218120             | 190841             | 088842             | 169978             |
| 19  | 218881             | 202738             | 098722             | 196247             |
| 2.0 | 22245              | *****              |                    |                    |
| 20  | 223645             | 212848             | 112264             | 214042             |
| 21  | 231578             | 220656             | 130652             | 226209             |
| 22  | 234167             | 220967             | 139142             | 227262             |
| 23  | 234481             | 216062             | 130168             | 221262             |
| 24  | 223566             | 206968             | 119168             | 218425             |
| 25  | 213583             | 198784             | 110818             | 212939             |
| 26  | 193724             | 182982             | 115614             | 204811             |
| 27  | 174819             | 170501             | 104594             | 192108             |
| 28  | 156807             | 164321             | 092186             | 177684             |
| 29  | 136466             | 154310             | 071112             | 156199             |
| 30  | 104081             | 132554             | 040498             | 126674             |
| 31  | 069068             | 114860             | .010498            | 096963             |
| 32  | 046332             | 109038             | .036971            | 079925             |
| 33  | 037300             | 090222             | .044653            | 068232             |
| 34  | 031839             | 069505             | .038843            | 065105             |
| 35  | 021875             | 064226             | .019486            | 078234             |
| 36  | 005961             | 064844             | .004147            | 088288             |
| 37  | .004909            | 061536             | 001794             | 087122             |
| 38  | .005879            | 057820             | • 009509           | 083748             |
| 39  | .011572            | 050373             | .019260            | 077396             |
| ,,  | *011772            | - 4000313          | 1017200            |                    |
| 40  | .010403            | 044118             | .008949            | 069069             |
| 41  | .00427L            | 033567             | .000494            | 063773             |
| 42  | 005313             | 024484             | .004824            | 064129             |
| 43  | 019497             | 021319             | .022030            | 071015             |
| 44  | 030935             | 011896             | .023128            | 075008             |
| 45  | 032602             | •006560            | •021921            | 078228             |
| 46  | 032782             | .018396            | .022261            | 085785             |
| 47  | 038455             | .027187            | .028492            | 091957             |
| 48  | 038734             | .043769            | .020878            | 088523             |
| 49  | 043530             | .057505            | .001639            | 079174             |
|     |                    |                    |                    |                    |
| 50  | 053642             | .062478            | 011133             | 063763             |
| 51  | 064731             | .065502            | 034277             | 053350             |
| 52  | 059870             | .061862            | 027135             | 045673             |
| 53  | 050826             | .062104            | 005108             | 034844             |
| 54  | 042005             | .063076            | .014663            | 027647             |
| 55  | 031602             | .060387            | .012000            | 026128             |
| 56  | 015414             | .065205            | .010931            | 024026             |
| 57  | 004590             | .067750            | .009909            | 020719             |
| 58  | 000298             | .064681            | .008826            | 013910             |
| 59  | 002694             | .056593            | 005397             | 002792             |
| 60  | 000473             | .054163            | 022601             | .002682            |
| -   |                    |                    | 1022001            | -002002            |

RUN NO. 85A 16M 11-16-62 1116-1231 EST 61 PGINT RUNNING MEAN, NO BLOCK AVERAGING

| CO | 22 | 2 | r | TO | 1     |
|----|----|---|---|----|-------|
|    | Эr | _ | L | 15 | <br>ш |

| K              | U <b>, V</b>             | U,W              | U,T                | V.W                                     | V,T              | W,T                  |
|----------------|--------------------------|------------------|--------------------|---|------------------|----------------------|
|                | 10E-02                   | 10E-01           | 10E-01             | 10E-02                                  | 10E-01           | 10E-02               |
| 0              | • 050695                 | 026157           | - 021540           |   | _                | 101-02               |
| 1              | .110701                  | 218029           | 021540<br>145937   | 019453                                  | 014088           | .074084              |
| 2              | .073828                  | 269711           | 140072             | 363682                                  | 128084           | •512223              |
| 3              | .138099                  | 305333           | 126061             | 124991                                  | 142460           | • 484994             |
| 4              | 293113                   | 214214           | 074077             | 071735<br>329286                        | 131820<br>082386 | • 458924<br>• 327221 |
| 5              | 720403                   | 111086           | 02277              |   |                  | . 32 1221            |
| 6              | 320463                   | 091188           | 032774             | 003483                                  | 039161           | .188384              |
| 7-8            | .013956                  | 110577           | 026683             | .029842                                 | 026154           | -182155              |
| 9-11           | 092976                   | 055075           | 022984<br>011338   | 400825                                  | 034035           | -212987              |
| 12-15          | .019259                  | 046137           | 009048             | 142372<br>.099492                       | 021504<br>012094 | •119178<br>•060440   |
| 16-20          | 032308                   | - 010534         |                    |   | .0120,4          | • 000440             |
| 21-27          | • 004603                 | 018526           | 003039             | .076648                                 | 007695           | .017579              |
| 28-36          | .031351                  | 010923<br>004197 | 002000             | .004257                                 | 005637           | .017508              |
| 37-47          | .000676                  | 003932           | 001525             | .031579                                 | 004048           | • 006663             |
| 48-60          | • 000109                 | 003206           | 000661             | 003329                                  | 002382           | .005479              |
|                | 10001(),                 |                  | 000382             | • 009490                                | 001306           | -000581              |
| QUADRATUR      | E SPECTRUM               |                  |                    |   |                  |                      |
| K              | U,V                      |                  |                    |   |                  |                      |
| · ·            | 0,4                      | U, W             | U,T                | V,W                                     | V , T            | W,T                  |
|                | 10E-01                   | 10E-02           | 10E-02             | 10E-02                                  | 10E-03           | 10E-02               |
| 1              | .185097                  | 473065           | 526918             | .171531                                 | - 440417         |                      |
| 2              | -211447                  | 384816           | 567407             | .168978                                 | 469417<br>594321 | - 046035             |
| 3              | .221709                  | 722701           | 734011             | .310232                                 | 867138           | -101018              |
| 4              | <ul><li>161567</li></ul> | 987636           | 565127             | .407219                                 | 260304           | •203328              |
| 5              | • 045335                 | 975933           | 239709             | .193201                                 | .317472          | .188902<br>.021125   |
| 6              | .007400                  | 920250           | 193347             | 105044                                  |                  |                      |
| 7-8            | .049985                  | 755265           | 216102             | • 195066<br>140388                      | -116658          | 045684               |
| 9-11           | .001261                  | 366425           | 046453             | •149388<br>-•224345                     | 176614           | •035680              |
| 12-15          | 001937                   | 210157           | 018511             | 101351                                  | 880193<br>454253 | 003874               |
| 16-20          | .005620                  | 151256           | 020533             | .006070                                 | 239757           | .002721<br>.003349   |
| 21-27          | -002941                  | 028905           | 000405             |   |                  | 1005,1,              |
| 28-36          | .000567                  | 029841           | 008495<br>003634   | 014894                                  | 105092           | 000890               |
| 37-47          | .001277                  | .011492          | 003743             | 011841                                  | 089645           | .000264              |
| 48-60          | .000579                  | 008996           | 000991             | .000635<br>004918                       | 033255<br>017090 | .000567              |
|                |                          |                  | -                  |   | *017070          | •000611              |
| POWER SPEC     | TRUM                     |                  |                    |   |                  |                      |
| K              | ι                        | J                | ٧                  | la la                                   |                  | Ţ                    |
|                | 10E                      | 00               | 10E 00             | 10E-                                    | ·01              | 10E-02               |
| 0              | .014                     | 122              |                    |   |                  | 106-02               |
| i              | .116                     |                  | .011022            | .017                                    |                  | .072217              |
| ž              | .136                     |                  | •114158<br>•139914 | • 171                                   |                  | •509980              |
| 3              | .146                     |                  | .135852            | . 247                                   |                  | •497400              |
| 4              | .101                     |                  | .088928            | • 309<br>• 241                          |                  | •447259              |
|                |                          |                  |                    | • | 010              | .290719              |
| 5<br>6         | •057                     |                  | .056500            | .173                                    | 874              | -161698              |
| 7-8            | -046                     | -                | .042648            | . 189                                   |                  | -129695              |
| 9-11           | .036                     |                  | .039292            | -215                                    |                  | .130614              |
| 12-15          | .014                     |                  | .030420            | . 143                                   |                  | .079159              |
|                |                          |                  | .018882            | . 109                                   | 576              | -049421              |
| 16-20          | .009                     |                  | -012254            | 072                                     | 2.76             | .027311              |
| 21-27<br>28-36 | •005                     |                  | .007995            | . 052                                   |                  | .019984              |
| 37-47          | •004                     |                  | .005798            | .033                                    |                  | .012348              |
| 48-60          | •002<br>•001             |                  | .003432            | • 022                                   |                  | .007892              |
|                | •001                     |                  | .002286            | .015                                    | 830              | .005003              |

RUN NO. 85A 16M 11-16-62 1116-1231 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

| H        | U, V              | U,W         | U,T     | V.W      | V,T      | W, T     |
|----------|-------------------|-------------|---------|----------|----------|----------|
|          | 0.10140           | 0.38014     | 0.21636 | 0.41703  | 0.23735  | 0.88982  |
|          | 10E 01            | 10E 00      | 10E 00  | 10E 00   | 10E 00   | 10E-01   |
| 0        | .031376           | 425232      | 535940  | 047328   | 624547   | .460330  |
| ĭ        | .053190           | 190406      | 365933  | 032481   | 454644   | .293111  |
| 2        | .029990           | 037024      | 173076  | .007502  | 271610   | .125298  |
| 3        | .026587           | 033314      | 058017  | 022206   | 189901   | .045216  |
| 4        | .022309           | .060008     | .040082 | .030894  | 088230   | 065439   |
|          |                   |             |         |          |          |          |
| 5        | 020960            | .077445     | .134020 | .009803  | 034042   | 118735   |
| 6        | 040526            | .072404     | .131448 | 054191   | .014942  | 097254   |
| 7        | 034990            | -061184     | .109623 | 034232   | .095366  | 066071   |
| 8        | 040278            | .078122     | .121930 | 014357   | .130606  | 071389   |
| 9        | 080915            | .026183     | .115333 | .026132  | .169427  | 070575   |
| 10       | 126403            | .026538     | .091764 | .044756  | .252576  | 056383   |
| 11       | 084206            | .018713     | .069422 | .052457  | .261140  | 057994   |
| 12       | 033020            | .012542     | .041144 | .053845  | .273969  | 082856   |
| 13       | .007178           | 024110      | .014469 | .045981  | .259253  | 054610   |
| 14       | .036307           | 034938      | .027954 | .010176  | .207970  | 033409   |
| 15       | .034196           | .028274     | .069756 | .028868  | .157328  | 056296   |
| 16       | .041543           | .054172     | .043443 | .074145  | .114823  | 099967   |
| 17       | .058310           | .029864     | .026836 | .009301  | -048101  | 036839   |
| 18       | .049290           | .068555     | .043119 | 050740   | 016113   | .000406  |
| 19       | .069160           | .054641     | 019235  | 046857   | 030847   | .033299  |
|          | *****             |             |         |          |          |          |
| 20       | .087494           | .025301     | 101204  | 046941   | 067788   | .062363  |
| 21       | .086307           | 032779      | 118307  | 054291   | 105214   | .066275  |
| 22       | .074683           | 004475      | 099948  | 024621   | 085273   | .017460  |
| 23       | .085743           | . 000649    | 079917  | 018767   | 078049   | .006911  |
| 24       | .027791           | .001164     | 015038  | 027829   | 076441   | .015427  |
| 25       | 027921            | .012197     | .044298 | .012401  | 022791   | .003695  |
| 26       | 067680            | 028107      | .098239 | 047461   | .004573  | .038589  |
| 27       | 041009            | 002861      | .094379 | 055303   | 042887   | .048848  |
| 28       | .005686           | .022809     | .034693 | 038222   | 089750   | .070547  |
| 29       | .031450           | 037029      | 027867  | 050913   | 114561   | .096848  |
| 30       | 004264            | 095041      | 088609  | 021350   | 063607   | .074525  |
| COSPECTR | UM                |             |         |          |          |          |
| K        | U,V               | U.W         | U.T     | V, H     | V,T      | W.T      |
|          | 106-01            | 10E-01      | 10E-01  | 10E-02   | 106-01   | 10E-02   |
| 0        | 011416            | 005184      | 008273  | .030725  | 008788   | .008420  |
| 1        | 131150            | 087005      | 076253  | 063705   | 199598   | .253936  |
| 2        | .072156           | 112563      | 128093  | 519054   | 317524   | .455862  |
| 3        | . 340976          | 134152      | 180146  | 521265   | 326548   | .565875  |
| 4        | .217477           | 163419      | 154588  | .228967  | 145686   | .456123  |
| 5        | 002609            | 177587      | 141375  | .368275  | 052800   | . 432209 |
| 6        | 074118            | 125764      | 115910  | 080310   | 066945   | .435343  |
| 7        | 059393            | 078353      | 061603  | 241664   | 071938   | .311843  |
| 8        | .054966           | 085618      | 058843  | 374852   | 062673   | .232403  |
| 9-11     | 004275            | 059888      | 038221  | 262563   | 039032   | .129331  |
| 12-14    | - 012570          | 052682      | 016290  | .097010  | 030066   | -064204  |
| 15-21    | 012578<br>.006824 | 054882      | 020339  | 159687   | 020720   | .086182  |
| 22-30    | 027539            | 026886      | 020339  | .094395  | 007570   |          |
| 25-30    | 021337            | - • 02 0000 |         | • U77272 | -1001310 | .032825  |

RUN NC. 85A 16M 11-16-62 1116-1231 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

| NORMAL IZED    | QUADRATURE C                            | OVARIANCE        |                   |                   |                  | _                                       |
|----------------|---|------------------|-------------------|-------------------|------------------|---|
|                | U,V                                     | U, W             | U,T               | V, W              | V • T            | W.T                                     |
| М              | 0,1                                     |                  | . 21424           | 0.41703           | 0.23735          | 0.88982                                 |
|                | 0.10140                                 | 0.38014          | 0.21636<br>10E 00 | 10E 00            | 10E 00           | 10E-01                                  |
|                | 10E 01                                  | 10E 00           | 105 00            |                   |                  | .027794                                 |
|                | -04330                                  | 095414           | 143076            | .019543           | 013692           | 009125                                  |
| 1              | .094228                                 | 064966           | 165351            | 028320            | 031835           | 023971                                  |
| 2              | .083775<br>.072884                      | 115389           | 175545            | 030836            | 041376<br>048776 | 007635                                  |
| 3              | .079629                                 | 117156           | 193288            | 021996            | 043546           | 036008                                  |
| 5              | .029847                                 | 083859           | 157142            | 054244            | - 1043210        |   |
| ,              |   |                  |                   | 048456            | 027947           | 027212                                  |
| 6              | .056883                                 | 044476           | 121244            | 006790            | .003918          | .007933                                 |
| ž              | .069292                                 | 001451           | 081569            | .011520           | .032797          | .019776                                 |
| 8              | .044405                                 | .033371          | 071896<br>064299  | .028411           | .043043          | .029050                                 |
| 9              | .048399                                 | .017037          | 020090            | .067685           | .059560          | .030881                                 |
| 10             | .066818                                 | .018682          | 020070            |                   |                  | .050352                                 |
|                |   | .045403          | 017391            | .056775           | .080418          | .073153                                 |
| 11             | .068839                                 | .011011          | 003352            | . 093463          | .081448          | .027778                                 |
| 12             | .049357                                 | .032025          | .047410           | .093055           | .073458          | .019625                                 |
| 13             | .031168<br>018743                       | .061969          | .057778           | .067828           | .024747          | .013840                                 |
| 14             | 034587                                  | 016662           | .033923           | .029003           | .024141          |   |
| 15             | -,034301                                |                  |                   | 029499            | 002552           | 033072                                  |
| 16             | 060886                                  | 035910           | .044339           | 029499            | 054556           | 047455                                  |
| 17             | 088027                                  | .036844          | .042418           | 039155            | 066658           | 013997                                  |
| 18             | 020646                                  | 014153           | .003587           | 054749            | 087937           | 028012                                  |
| 19             | 001862                                  | 033396           | .046826           | 071278            | 077650           | 031667                                  |
| 20             | 017779                                  | .027731          | .040020           |                   | -54              | .004384                                 |
|                |   | .022644          | .027582           | 028875            | 057710           | 008762                                  |
| 21             | 020103                                  | .028204          | .022011           | 026399            | 035335           | 045609                                  |
| 22             | 031710                                  | 000564           | 004112            | 027892            | .007263          | 023891                                  |
| 23             | .004760<br>.078979                      | .012780          | 052165            | 005254            | .018239          | 022972                                  |
| 24             | .088997                                 | .004338          | 079776            | 034613            | .032074          |   |
| 25             | • 000771                                | •••              |                   | 021793            | .036387          | 030294                                  |
| 24             | .042496                                 | 013319           | 036647            | 031783<br>.005171 | .016556          | 016522                                  |
| 26<br>27       | 001700                                  | 040295           | .022675           | .021085           | 016308           | .007772                                 |
| 28             | 049344                                  | .006351          | .059536           | .023834           | .007616          | .021718                                 |
| 29             | 025184                                  | .013526          | .035944           | .068269           | .003462          | .028368                                 |
| 30             | 017173                                  | 055520           | .023022           |                   |                  |   |
|                |   |                  |                   |                   |                  |   |
| QUADRAT        | URE SPECTRUM                            |                  |                   |                   | V,T              | W.T                                     |
| ĸ              | U.V                                     | U, W             | U•T               | V, W              | ***              |   |
| ^              | • |                  |                   |                   |                  |   |
|                |   |                  | 10E-01            | 10E-01            | 10E-02           | 10E-02                                  |
|                | 10E-01                                  | 10E-01           | 105-01            | • • •             |                  | 044154                                  |
|                |   | 010500           | 081480            | .041619           | .277552          | .066154                                 |
| 1              | .289610                                 | 018598<br>054442 | 111644            | .030160           | .215617          | .057486<br>061654                       |
| 2              | .328159                                 | 102918           | 134266            | 067538            | 353595           | 142635                                  |
| 3              | .282738                                 | 126515           | 095267            | 120079            | /64944           | 063222                                  |
| 4              | .058590                                 | 104363           | 058812            | 028568            | 264690           | • |
| 5              | .041423                                 |                  |                   | 011501            | .084929          | .047556                                 |
| ,              | .156890                                 | 057523           | 042194            | .046504           | 021954           | .058163                                 |
| 6<br>7         | .167096                                 | 037448           | 037147            | .023886<br>003430 | .004894          | .013835                                 |
| 8              | .086086                                 | 023029           | 031658            | .014091           | .046601          | .032183                                 |
| 9-11           | .071087                                 | .008477          | 008694<br>008718  | 003355            | 014133           | .002475                                 |
| 12-14          | . 043465                                | 011420           | 006/16            |                   |                  | 020436                                  |
|                |   | 022017           | 011309            | .019593           | .006115          | .039478<br>004602                       |
|                | .045477                                 | 022917           |                   | 000704            | .007204          | 004002                                  |
| 15-21<br>22-30 | 007707                                  | 013085           | 001292            | 000704            | .00120           |   |

RUN NO. 85A 16M 11-16-62 1116-1231 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

| M             | U        | ٧                                       | u                                       | τ                  |
|---------------|----------|---|---|--------------------|
|               | 0.92431  | 0.11124                                 | 0.15634                                 | 0.50644            |
|               | 10E 00   | 10E 01                                  | 10E 00                                  | 10E-01             |
|               | •••      |   | 100 00                                  |                    |
| 0             | 1.000000 | 1.000000                                | 1.000000                                | 1.000000           |
| 1             | .512576  | .612091                                 | . 256242                                | .717556            |
| 2             | .187483  | .328095                                 | .060487                                 | .409892            |
| 3             | .048768  | .197128                                 | .042077                                 | .225473            |
| 4             | 069806   | .081140                                 | 099664                                  | .027884            |
|               |          |   |   |                    |
| 5             | 199950   | .040523                                 | 102841                                  | 103730             |
| 6             | 163173   | 018415                                  | 159449                                  | 148072             |
| 7             | 151821   | 133358                                  | 138728                                  | 182675             |
| 8             | 152081   | 175326                                  | 079937                                  | 202607             |
| 9             | 138268   | 192231                                  | 048925                                  | 223230             |
| 10            | 090896   | 258732                                  | 112414                                  | 2/7257             |
| ii            | 074237   | 269689                                  | 113416<br>094131                        | 247257             |
| 12            | 062908   | 273681                                  | 116110                                  | 258826<br>278110   |
| 13            | 095660   | 258604                                  | 085246                                  | 253192             |
| 14            | 076618   | 196739                                  | 009198                                  | 225424             |
| •             |          | • | *************************************** | 122727             |
| 15            | 091018   | 154933                                  | 036287                                  | 212433             |
| 16            | 025492   | 145770                                  | 045185                                  | 150987             |
| 17            | .000501  | 117217                                  | .020123                                 | 058070             |
| 18            | 017510   | 063398                                  | .091395                                 | 001629             |
| 19            | 003576   | 082238                                  | .008089                                 | .072860            |
|               |          |   |   |                    |
| 20            | .032928  | 053561                                  | .044192                                 | -142609            |
| 21            | .070063  | 051361                                  | .094804                                 | .180108            |
| 22            | .039173  | 042477                                  | 064394                                  | .137229            |
| 23            | •009702  | 020813                                  | .024728                                 | .087102            |
| 24            | 037551   | .038058                                 | .009748                                 | .054571            |
| 25            | 072779   | 034530                                  | 017744                                  | 014124             |
| 26            | 077833   | •024529<br>-•014935                     | .017364                                 | 014124             |
| 27            | 093265   | •080406                                 | •059306<br>-•023281                     | 052597<br>-003487  |
| 28            | 080900   | •141710                                 | 039604                                  | .071370            |
| 29            | .008780  | .193645                                 | .089302                                 | .124328            |
|               |          | 0273013                                 | 1007502                                 | *124320            |
| 30            | .139899  | .185014                                 | .092639                                 | .100937            |
|               |          |   |   |                    |
|               |          |   |   |                    |
| POWER SPECTRU | M        |   |   |                    |
|               |          |   |   |                    |
| K             | U        | V                                       | H                                       | T                  |
|               |          |   |   |                    |
|               | 105 00   | 105.00                                  |   |                    |
|               | 10E 00   | 10E 00                                  | 10E-01                                  | 10E-02             |
| 0             | .005058  | .008257                                 | .002145                                 | 040272             |
| ĭ             | .056547  | •145375                                 | .047418                                 | .040273<br>.544711 |
| Ž             | .080028  | .186598                                 | .092082                                 | .845753            |
| 3             | .105350  | .175355                                 | .135069                                 | •956006            |
| 4             | .096844  | .106618                                 | .119597                                 | .579054            |
|               |          |   |   | -317034            |
| 5             | .085981  | .060516                                 | .096316                                 | .400697            |
| 6             | .078853  | .048820                                 | .097491                                 | .412437            |
| 7             | .059445  | .052515                                 | .092073                                 | .297709            |
| 8             | .045027  | .048931                                 | .071449                                 | -212841            |
| 9-11          | .034290  | .037921                                 | .046708                                 | .126474            |
|               |          |   |   |                    |
| 12-14         | .021564  | .030616                                 | • 059674                                | .078046            |
| 15-21         | .025023  | .019467                                 | • 057702                                | .071232            |
| 22-30         | .015153  | -014621                                 | .059375                                 | .031996            |

#### RUN NO. 85A 40M 11-16-62 1116-1231 EST

#### GROSS STATISTICS

| CLEAR<br>Unstable<br>Land | WIND SF<br>Sigma A<br>Sigma E | 13.4 DEG                       | WIND DIRE<br>SOLAR RAD<br>NET RADIA |                                    |
|---------------------------|-------------------------------|--------------------------------|-------------------------------------|------------------------------------|
|                           | WITH NO<br>RUNNING MEAN       | WITH 301 POINT<br>RUNNING MEAN | WITH 61 POINT<br>RUNNING MEAN       | 301 PT RUN MEAN<br>10 PT BLOCK AVG |
| VARIANCES                 |                               |                                |                                     |                                    |
| U                         | 0.27498E 01                   | 0.17418E 01                    | 0.10107E 01                         | 0.12397E 01                        |
| V                         | 0.29777E 01                   | 0.14914E 01                    | 0.88557E 00                         | 0.98151E 00                        |
| ¥                         | 0.70258E 00                   | 0.67300E 00                    | 0.54778E 00                         | 0.32332E-00                        |
| T                         | 0.25019E-00                   | 0.36066E-01                    | 0.16359E-01                         | 0.28909E-01                        |
| E                         | 0.32151E 01                   | 0.19534E 01                    | 0.12221E 01                         |                                    |
| GUSTINESS RATIO           | DS                            |                                |                                     |                                    |
| U                         | 0.22081                       | 0.17574                        | 0.13387                             | 0.14826                            |
| ٧                         | 0.22978                       | 0.16261                        | 0.12531                             | 0.13192                            |
| W                         | 0.11161                       | 0.10924                        | 0.09855                             | 0.07571                            |
| COVARIANCES               |                               |                                |                                     |                                    |
| u,v                       | -0.50330E 00                  | 0.41757E-01                    | 0.33712E-01                         | 0.13026E-01                        |
| Ŭ,W                       | -0.57544E 00                  | -0.45573E-00                   | -0.25249E-00                        | -0.35904E-00                       |
| U,T                       | 0.76545E-01                   | -0.14712E-00                   | -0.57447E-01                        | -0.12922E-00                       |
| V.W                       | -0.99697E-01                  | -0.69570E-01                   | -0.31487E-01                        | -0.37576E-01                       |
| V,T                       | -0.50934E 00                  | -0.82619E-01                   | -0.39221E-01                        | -0.59291E-01                       |
| W, T                      | 0.84260E-01                   | 0.74229E-01                    | 0.38572E-01                         | 0.57275E-01                        |
| WE                        | 0.39115E-00                   | 0.28186E-00                    | 0.12171E-00                         |                                    |
| NORMALIZED COV            | ARIANCES                      |                                |                                     |                                    |
|                           |                               |                                |                                     |                                    |
| U.V                       | -0.17588                      | 0.02591                        | 0.03563                             | 0.01181                            |
| U.W                       | -0.41400                      | -0.42092                       | -0.33934                            | -0.56712                           |
| U.T                       | 0.09228                       | -0.58697                       | -0.44676                            | -0.68261                           |
| V,W                       | -0.06893                      | -0.06944                       | -0.04521                            | -0.06670                           |
| V,T                       | -0.59011                      | -0.35624                       | -0.32586                            | -0.35198                           |
| W.T                       | 0.20098                       | 0.47645                        | 0.40746                             | 0.59242                            |

RUN NO. 85A 40M 11-16-62 1116-1231 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| M          | U,V       | U, W    | U, T    | V, W     | V,T                | W.T                |
|------------|-----------|---------|---------|----------|--------------------|--------------------|
|            | 0.94618   | 0.74423 | 0.12860 | 0.69651  | 0 1202/            |                    |
|            | 10E 00    | 10E 00  | 10E 00  | 10E 00   | 0.12036<br>10E 00  | 0.94668<br>10E-01  |
| 0          | .035600   | 339334  | 446765  | 045114   | 325938             | •407500            |
| 1          | .028745   | 317592  | 420795  | 033230   | 270482             |                    |
| 2          | .015073   | 265579  | 369398  | 022709   | 192318             | •361019<br>•285077 |
| 3          | .000618   | 210434  | 318683  | 013304   | 128878             | -221757            |
| 4          | 007486    | 160418  | 271120  | .003790  | 081945             | .167165            |
| 5          | 009221    | 124333  | 222611  | .017320  | 045627             | .123565            |
| 6          | 008665    | 089782  | 177396  | .018090  | 014638             | .091763            |
| 7          | 008476    | 055069  | 136422  | .016974  | 000439             | .062932            |
| 8          | .006589   | 031164  | 109132  | .011894  | 004614             | .045869            |
| 9          | .023340   | 024025  | 087115  | -004128  | 010954             | -031937            |
| 10         | .027324   | 025789  | 066782  | .006771  | 011099             | .018727            |
| 11         | -030884   | 022323  | 051320  | .009736  | 008255             | .009801            |
| 12         | .034200   | 013324  | 037314  | .007596  | 007386             | 002868             |
| 13         | .029947   | .007472 | 014496  | 000279   | 005504             | 016632             |
| 14         | .012958   | .035258 | -013311 | 004763   | .000653            | 029995             |
| 15         | 001140    | .058834 | .039701 | 009447   | .014464            | 033476             |
| 16         | 006297    | .070998 | .063537 | 015631   | .026607            | 039718             |
| 17         | 004928    | .082860 | .086027 | 022841   | .039202            | 051154             |
| 18         | 004462    | .091099 | .104652 | 033974   | .052112            | 063597             |
| 19         | 004460    | .097393 | •121737 | 028395   | .059952            | 080624             |
| 20         | 010461    | .099107 | -136011 | 020758   | .062657            | - 000537           |
| 21         | 014456    | .100231 | .139560 | 010188   | .063498            | 099527             |
| 22         | 015496    | .097826 | .140034 | .003307  | .059766            | 119708             |
| 23         | 022195    | .088727 | .142904 | .013171  | .055928            | 129407<br>129827   |
| 24         | 027422    | .081997 | .145533 | .013824  | .050499            | 120651             |
| 25         | 023135    | .080575 | .138592 | .009705  | .050148            | 105337             |
| 26         | 016383    | .081020 | .125689 | .007481  | .050531            | 097506             |
| 27         | 013325    | .082643 | .111204 | .003793  | .058650            | 091399             |
| 28         | 015806    | .080747 | .097276 | .000015  | .069201            | 081161             |
| 29         | 019897    | .075328 | .086614 | 004449   | .077079            | 067307             |
| 30         | 025730    | .061690 | .080254 | 008805   | .071073            | 051806             |
| 31         | 031481    | .046705 | .076990 | 014025   | -058451            |                    |
| 32         | 032055    | .038122 | .074439 | 022789   | .049811            | 034550<br>024659   |
| 33         | 036547    | .033168 | .073694 | 024276   | .039679            | 021665             |
| 34         | 038035    | .029282 | •069090 | 018098   | .031015            | 026494             |
| 35         | 027532    | .014690 | .060657 | 011280   | 025177             | 020145             |
| 36         | 013406    | .000267 | .050638 | 000306   | •025177<br>•018197 | 030145             |
| 37         | 003860    | 008275  | .042300 | .011606  | .011981            | 023357             |
| 38         | 000385    | 010123  | .043494 | .015487  | .007112            | 012556<br>006272   |
| 39         | 000589    | 006140  | .045912 | .014981  | .005219            | 011278             |
| 40         | • 0031 09 | 002657  | .047495 | .014275  | 000640             | - 020522           |
| 41         | .003245   | .003724 | .047960 | .012846  | 008548             | 020533             |
| 42         | .003521   | .008915 | .048718 | .016327  | •018541<br>•025391 | 021294             |
| 43         | .003332   | .005990 | .047672 | .026037  | .030304            | 018677             |
| 44         | .007108   | .001130 | .043737 | .039218  | .031266            | 018771<br>027340   |
| 45         | .007229   | .001287 | .048874 | . 050335 | .031008            | - 021101           |
| 46         | .008834   | .008612 | .054610 | .052720  | .026678            | 031181             |
| 47         | .007283   | .017118 | .056493 | .055327  | .016066            | 028239             |
| 48         | .008158   | .027715 | .059233 | .057484  | .007318            | 028308             |
| 49         | .014164   | .036498 | .057244 | .050518  | 000581             | 033189<br>033697   |
| 50         | .021001   | .045995 | •050123 | .035322  | *. 000770          | - 0313:-           |
| 51         | .024414   | .049632 | .042875 | .017790  | 009779<br>023216   | 031217             |
| 52         | .019597   | .041749 | .040021 | .007525  | 034059             | 028881<br>027942   |
| 53         | .011581   | .029241 | .042129 | .000626  | 034083             |                    |
| 54         | .005393   | .015584 | .041198 | 003138   | 028393             | 021565<br>014207   |
| 55         | .007688   | .001902 | .035493 | 011181   | 029110             | 009224             |
| 56<br>57   | .012744   | 009328  | -032291 | 016520   | 028696             | 006399             |
| 57         | .011172   | 021274  | .030892 | 018414   | 028290             | 00654              |
| 58<br>50   | .003752   | 023519  | .021945 | 015214   | 024959             | 002149             |
| 5 <b>9</b> | 003316    | 015711  | .016715 | 011341   | 019226             | .003287            |
| 60         | 006229    | 013357  | .008645 | 013204   | 013741             | .017883            |
|            |           |         |         |          |                    |                    |

RUN NO. 85A 40M 11-16-62 1116-1231 EST 61 PCINT RUNNING MEAN, NO BLOCK AVERAGING

#### NORMALIZED QUADRATURE COVARIANCE

| HUNHALIZED | WOMDING TORE      | COVARIANCE |         |                    |                    |                   |
|------------|-------------------|------------|---------|--------------------|--------------------|-------------------|
| H          | U,V               | U, W       | U,T     | V, W               | V , T              | W. T              |
| •          | •••               | •••        | •••     | • • •              | •••                |                   |
|            | 0.94618           | 0.74423    | 0.12860 | 0.69651            | 0.12036            | 0.94668           |
|            | 10E 00            | 10E 00     | 10E 00  | 10E 00             | 10E 00             | 10E-01            |
|            |                   |            |         |                    |                    |                   |
| 1          | .014989           | 010352     | 024054  | .008680            | 018313             | .013069           |
| 2          | .034182           | 020913     | 044916  | .017016            | 027499             | .026734           |
| 3          | .047514           | 030592     | 060981  | .020191            | 031523             | .034637           |
| <u> </u>   | .053007           | 035017     | 073682  | .014382            | 029694             | .037946           |
| 5          | .054935           | 039124     | 079326  | .012685            | 027680             | .041829           |
| 6          | . 050532          | 035903     | 081539  | .011910            | 027924             | .050433           |
| 7          | .044997           | 025350     | 081319  | .010392            | 026778             | .061959           |
| 8          | . 039104          | 023918     | 077910  | .014465            | 021916             | .070232           |
| 9          | .034909           | 026799     | 076647  | .017859            | 015913             | .074475           |
| 10         | .037201           | 019428     | 076684  | .016106            | 011863             | .069754           |
|            |                   |            |         |                    |                    |                   |
| 11         | . 044854          | 007721     | 076998  | .012381            | 005911             | .061704           |
| 12         | .052622           | .004915    | 080179  | .009784            | 001076             | .054000           |
| 13         | .059528           | .011249    | 085029  | .002334            | .001630            | .048339           |
| 14         | .051592           | .020899    | 079744  | 006714             | .001377            | .042836           |
| 15         | .038115           | .021270    | 070517  | 008613             | 002008             | .034916           |
| 16         | .023256           | .012823    | 065636  | 008565             | 001048             | .028212           |
| 17         | .016729           | .003472    | 062826  | 005216             | •002837            | .025868           |
| 18         | .013884           | 002007     | 059105  | 006449             | .006880            | .025696           |
| 19         | .009322           | 015200     | 060144  | 005197             | .009688            | .027412           |
| 20         | .007644           | 030793     | 059395  | 003803             | .010618            | .021966           |
|            |                   |            |         |                    |                    |                   |
| 21         | .011211           | 038056     | 053876  | 008731             | .012234            | .017158           |
| 22         | .016509           | 036698     | 046254  | 015665             | .014904            | .018520           |
| 23         | .022127           | 026645     | 037319  | 008377             | .017691            | .018260           |
| 24         | .024460           | 023509     | 029520  | 004150             | .016992            | .017011           |
| 25         | .026525           | 024240     | 025387  | 005455             | .019568            | .012254           |
| 26         | .023422           | 023531     | 020494  | 008760             | .023374            | .009178           |
| 27         | .016053           | 020309     | 010560  | 006407             | .026433            | .008675           |
| 28         | .011292           | 008476     | 001198  | 006695             | .022947            | .007670           |
| 29         | .010584           | 001364     | .005411 | 008035             | .012918            | .002504           |
| 30         | .008260           | .001919    | .007550 | 012979             | .003561            | 005806            |
|            |                   |            |         |                    |                    |                   |
| 31         | 000124            | 007159     | .013071 | 015039             | .000470            | 016775            |
| 32         | 007248            | 015787     | .020027 | 020181             | .000759            | 030417            |
| 33         | 005301            | 017328     | .024024 | 028532             | .003191            | 043870            |
| 34         | .000182           | 016790     | .022434 | 024562             | .004376            | 052334            |
| 35         | .000958           | 015139     | .017077 | 009339             | .008939            | 053894            |
| 36         | 001461            | 007286     | .022257 | .002767            | .014339            | 053636            |
| 37         | 000064            | 000720     | .024799 | .007723            | .012714            | 047428            |
| 38         | 001716            | .001721    | .022676 | .009203            | .009164            | 036780            |
| 39         | .000917           | 000507     | .014974 | .013541            | .005289            | 027819            |
| 40         | .003394           | .003919    | .009524 | .020428            | .000449            | 016434            |
|            |                   |            |         |                    |                    |                   |
| 41         | 002278            | .005045    | .008630 | .024255            | 002888             | 005794            |
| 42         | 009431            | .005512    | .011797 | .029843            | 001046             | 000100            |
| 43         | 008366            | .006236    | .014729 | .041168            | .002326            | .004744           |
| 44         | 000686<br>.001132 | .005517    | .014574 | .040752<br>.035297 | .002467<br>.005057 | .002090<br>000543 |
| 45         | .001132           | .004700    | .016687 | •035291            | • 0000071          |                   |
| 46         | 000430            | .008734    | .013962 | .029108            | .008027            | 005274            |
| 47         | 007627            | .017014    | .014856 | .022168            | .004943            | 007436            |
| 48         | 018262            | .016896    | .015578 | .010484            | 002501             | 008051            |
| 49         | 022172            | .010817    | .015819 | ~.000315           | 010552             | 006714            |
| 50         | 026255            | .010177    | .014319 | 013596             | 020728             | 008123            |
|            |                   |            |         |                    |                    |                   |
| 51         | 030462            | .020181    | .012137 | 029236             | 032776             | 011934            |
| 52         | 033671            | .027739    | .012327 | 043813             | 039427             | 014398            |
| 53         | 031525            | .035002    | .011923 | 046939             | 034070             | 013628            |
| 54         | 027714            | .050258    | .011875 | 043504             | 027106             | 003060            |
| 55         | 022569            | .060347    | .012925 | 038439             | 023019             | .010779           |
| 56         | 016794            | .063882    | .010409 | 023566             | 017534             | .024428           |
| 57         | 008013            | .054185    | .003210 | 012621             | 010517             | .035838           |
| 58         | 004320            | .044081    | 004346  | .001531            | 001880             | .047031           |
| 59         | 001920            | .035605    | 006457  | .005948            | .000755            | .051662           |
| 60         | 002598            | .026707    | 005355  | .002104            | 001353             | .046348           |
|            |                   |            |         |                    |                    |                   |

RUN NO. 85A 40M 11-16-62 1116-1231 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| M        | U                | v                    | W                                       |   |
|----------|------------------|----------------------|---|---|
|          | 0.10110          |                      |   | T                                       |
|          | 10E 01           | 0.88551<br>10E 00    | 0.54785<br>10E 00                       | 0.16358                                 |
| 0        | 1.000000         | 1 000000             |   | 10E-01                                  |
| 1        | .835087          | 1.000000<br>.803997  | 1.000000                                | 1.000000                                |
| 2        | .637366          | •565426              | • 755368                                | .864107                                 |
| 3        | -480476          | •394872              | • 470704                                | .686479                                 |
| 4        | -358576          | .267127              | • 288526<br>• 161731                    | -539668                                 |
| 5        | -263311          | .171975              |   | •424090                                 |
| 6        | -191018          |                      | .075114                                 | -336670                                 |
| 7        | -129571          | •094749<br>•046557   | • 016505                                | -259206                                 |
| 8        | .070885          | .021383              | 019671                                  | -196654                                 |
| 9        | •030325          | .001398              | -•044753<br>-•063692                    | -152887                                 |
| 10       | -002479          |                      | *************************************** | -116629                                 |
| 11       | 014183           | 020397               | 074862                                  | -078777                                 |
| 12       | 032623           | 043108               | 082504                                  | .047596                                 |
| 13       | 057999           | 064450               | 083934                                  | -018788                                 |
| 14       | 093494           | -•085757<br>-•101717 | 095263                                  | 012914                                  |
| 16       |                  | -•101/11             | ~- 099103                               | 049868                                  |
| 15<br>16 | 127095           | 115610               | 091154                                  | 0000                                    |
| 17       | 154556           | 131364               | 091813                                  | 092582                                  |
| 18       | 171502           | 165520               | 091658                                  | 128362                                  |
| 19       | 179005           | 202888               | 094317                                  | 157810                                  |
|          | 193056           | 226843               | 111930                                  | 188172<br>210597                        |
| 20       | 197179           | 234934               |   | *************************************** |
| 21       | 194232           | 226982               | 134618                                  | 230284                                  |
| 22       | 192975           | 210552               | 154457                                  | 245540                                  |
| 23       | 196102           | 193828               | 163512                                  | 252782                                  |
| 24       | 203094           | 172470               | 160247<br>161175                        | 255491                                  |
| 25       | 210604           |                      |   | 256061                                  |
| 26       | 205920           | 157424               | 154823                                  | 256115                                  |
| 27       | 191207           | 145266               | 140973                                  | 249455                                  |
| 28       | 175473           | 141023<br>139068     | 134953                                  | 238422                                  |
| 29       | 161811           | 135509               | -•134287<br>-•126792                    | 224618                                  |
| 30       | - 1//010         |                      | -+150145                                | 206412                                  |
| 31       | 144018<br>116856 | 119715               | 102621                                  | 178951                                  |
| 32       | 093777           | 086299               | 062360                                  | 150494                                  |
| 33       | 074500           | 066304               | 036460                                  | 126235                                  |
| 34       | 059924           | 047642<br>042131     | 021308                                  | 107797                                  |
| 35       |                  | 1042131              | 010301                                  | 094703                                  |
| 36       | 043651           | 034467               | •000315                                 | - FRO-17                                |
| 37       | 035628           | 023948               | • 008949                                | 086085                                  |
| 38       | 028585           | 021008               | .022972                                 | 074652                                  |
| 39       | 022840           | 010394               | .039621                                 | 064959                                  |
|          | 026811           | •004558              | .041850                                 | 060460<br>055645                        |
| 40       | 030119           | *****                |   | 022645                                  |
| 41       | 037390           | •019379              | . 026999                                | 053448                                  |
| 42       | 041818           | .023675              | .024105                                 | 055006                                  |
| 43       | 040079           | .024592              | -026149                                 | 054619                                  |
| 44       | 025351           | •024863<br>•028097   | .018019                                 | 058326                                  |
| 45       |                  | *028097              | • 007303                                | 061660                                  |
| 46       | 021249           | -028904              | .006348                                 |   |
| 47       | 022201           | .038209              | .017657                                 | 058467                                  |
| 48       | 034958           | -051524              | .024744                                 | 051656                                  |
| 49       | 042712           | .063529              | .020043                                 | 046082                                  |
|          | 048519           | •078177              | -018065                                 | 043029<br>041387                        |
| 50       | 051150           | .087950              |   | 1041367                                 |
| 51       | 051673           | .093802              | .020774                                 | 038092                                  |
| 52       | 052432           | •092987              | . 005395                                | 029091                                  |
| 53<br>54 | 049349           | .080507              | 010932                                  | 015503                                  |
| 24       | 042060           | .066389              | 000678<br>.010109                       | 008937                                  |
| 55       | 024925           | 0.407 -              |   | 006222                                  |
| 56       | 007101           | •048106<br>033304    | .026623                                 | 004287                                  |
| 57       | -002710          | .023304<br>.008506   | .041822                                 | 008643                                  |
| 58       | .001302          | 001024               | .046924                                 | 011434                                  |
| 59       | 001387           | -•001024<br>-•003001 | .039160                                 | 011705                                  |
| 60       | _ ^^*            |                      | .028455                                 | 009463                                  |
|          | 001051           | 001816               | .028474                                 | 000667                                  |
|          |                  | 261                  | •                                       | - 200001                                |

RUN NO. 85A 40M 11-16-62 1116-1231 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| COSPECTR | UM           |        |  |
|----------|--------------|--------|--|
| K        | U <b>, V</b> | U.W    |  |
|          | 10E-02       | 108-01 |  |

| K      | U.V      | U. W    | U,T    | V,W     | V.T    | W.T     |
|--------|----------|---------|--------|---------|--------|---------|
|        | 10E-02   | 10E-01  | 10E-01 | 10E-02  | 10E-02 | 10E-02  |
| 0      | 041416   | 056290  | 020556 | 070799  | 047791 | .082477 |
| 1      | .593621  | 438544  | 141894 | 392370  | 494164 | .642711 |
| 2      | .861701  | 483322  | 132733 | .038116 | 547894 | .676209 |
| 1 2 3  | . 247066 | 475559  | 110698 | .126928 | 466852 | .633746 |
| 4      | 481776   | 285336  | 062261 | 163185  | 280398 | .379547 |
| 5<br>6 | 336320   | 139822  | 026171 | 076234  | 198000 | .178079 |
| 6      | 126965   | 121887  | 017530 | 383831  | 218812 | .174143 |
| 7-8    | .100331  | 104632  | 021162 | 563777  | 212820 | .215388 |
| 9-11   | . 499637 | 099879  | 013491 | 073342  | 204432 | -105177 |
| 12-15  | .211487  | 023056  | 003413 | 204475  | 085516 | .072616 |
| 16-20  | .047854  | 014305  | 002287 | .003623 | 039234 | .029820 |
| 21-27  | .047156  | 009664  | 001650 | .009640 | 033007 | .018709 |
| 28-36  | 024609   | .000376 | 000666 | 017150  | 016702 | .010827 |
| 37-47  | .021494  | 001649  | 000363 | 037048  | 009313 | .007579 |
| 48-60  | .001782  | .000661 | 000048 | 008024  | 006098 | .001434 |
|        |          |         |        |         |        |         |

#### QUADRATURE SPECTRUM

| K                | U,V     | U, W    | U,T     | V,W     | V.T     | W, T    |
|------------------|---------|---------|---------|---------|---------|---------|
|                  | 10E-01  | 10E-02  | 10E-02  | 10E-02  | 10E-03  | 10E-02  |
| 1                | .199190 | 856317  | 470795  | 103781  | .484198 | .156440 |
| 2                | .173012 | 493790  | 468581  | .005340 | 226387  | .222214 |
| 3                | .133830 | 095014  | 362693  | .414396 | 974139  | .203637 |
| 1<br>2<br>3<br>4 | .095796 | 211551  | 153419  | .409575 | 997163  | .084652 |
| 5                | .071101 | 540913  | 069485  | .116777 | 733551  | .060063 |
| 6                | .053022 | 762816  | 081297  | .310012 | 423862  | .073752 |
| 7-8              | .009847 | 534163  | 060258  | .036883 | 476154  | 012543  |
| 9-11             | .040899 | .135434 | 031460  | .029371 | 195028  | 010170  |
| 12-15            | .007569 | 104429  | 011879  | .108276 | 076922  | .007719 |
| 16-20            | 006451  | .025731 | .002719 | .022822 | 126983  | .009772 |
| 21-27            | 001076  | .031269 | .000887 | .003485 | 045336  | 001455  |
| 28-36            | 001027  | 006012  | 000801  | 013901  | .005320 | 001588  |
| 37-47            | 001841  | 001710  | 001191  | 006070  | 013266  | 000240  |
| 48-60            | .000724 | 005190  | .000342 | .008024 | 006115  | 000220  |

#### POWER SPECTRUM

| FUNCK SPECIA | OF .    |         |          |         |
|--------------|---------|---------|----------|---------|
| K            | U       | V       | W        | T       |
|              | 10E 00  | 10E 00  | 10E-01   | 10E-02  |
| 0            | .017609 | .009093 | .033737  | .039021 |
| 1            | .142174 | .085933 | .377368  | .294769 |
| 2            | .155083 | .114774 | .531510  | .301088 |
| 2            | .150218 | .122887 | .603164  | -263217 |
| 4            | .098913 | .082900 | .426806  | .150461 |
| 5            | .061301 | .054073 | .319277  | .078570 |
| 6            | .054490 | .044239 | .353907  | .069925 |
| 7-8          | .045482 | .043543 | .324279  | .068977 |
| 9-11         | .032370 | .034575 | . 206053 | .047724 |
| 12-15        | .016018 | .019388 | .150218  | -025060 |
| 16-20        | .012170 | .010567 | • 090502 | .015736 |
| 21-27        | .006874 | .008109 | .060902  | .009756 |
| 28-36        | .004353 | .004951 | .040162  | .005284 |
| 37-47        | .002911 | .003130 | .025302  | .003691 |
| 48-60        | .002042 | .001844 | .014476  | .002390 |

RUN NC. 85A 40M 11-16-62 1116-1231 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

| M        | U,V                                     | U, W     | U.T     | V.W      | V,T                                     | W, T                                    |
|----------|---|----------|---------|----------|---|---|
|          | 0.11035                                 | 0 (2222  |         |          |   |   |
|          | 10E 01                                  | 0.63333  | 0.18945 | 0.56340  | 0.16853                                 | 0.96721                                 |
|          | 101 01                                  | 10E 00   | 10E 00  | 10E 00   | 10E 00                                  | 10E-01                                  |
| 0        | .011804                                 | 566908   |         |          |   |   |
| 1        | .017624                                 | 320845   | 682102  | 066696   | 351808                                  | .592168                                 |
| 2        | .012376                                 |          | 485855  | 060321   | 256305                                  | -386102                                 |
| 3        | 008923                                  | 130425   | 274913  | 043315   | 182797                                  | .191398                                 |
| 4        | •008457                                 | 064781   | 143652  | 025447   | 130318                                  | .100673                                 |
| ·        | *********                               | -034810  | 006892  | 001149   | 090046                                  | .015520                                 |
| 5        | -048073                                 | -090940  |         |          |   |   |
| 6        | .038512                                 |          | .072444 | • 019334 | 074418                                  | 049038                                  |
| 7        | .041893                                 | .062053  | .073531 | 021059   | 049589                                  | 042014                                  |
| 8        | .040892                                 | .073475  | .069199 | 015561   | 009374                                  | 058860                                  |
| 9        |   | -074477  | .091600 | .005339  | .030901                                 | 070524                                  |
| •        | 003905                                  | •052809  | •104762 | • 048193 | .080600                                 | 100230                                  |
| 10       | - 041400                                | 000101   |         |          |   | *************************************** |
| ii       | 061490                                  | .088686  | .135819 | .068933  | -145073                                 | 138238                                  |
| 12       | 062348                                  | .046147  | .137416 | .050070  | .154725                                 | 127641                                  |
| 13       | 040170                                  | • 073666 | ·126087 | .059351  | .163536                                 | 157769                                  |
|          | 037469                                  | -108126  | .126889 | .041988  | .181919                                 |   |
| 14       | 028339                                  | .102240  | -151476 | .040012  | .170291                                 | 198451                                  |
|          |   |          |         |          | *110271                                 | 178812                                  |
| 15       | 011613                                  | • 055033 | .120307 | .019114  | .149107                                 | 12122                                   |
| 16       | .019708                                 | .079353  | -104176 | 002034   |   | 131227                                  |
| 17       | •028516                                 | .048609  | .103423 | 039826   | -123480                                 | 113257                                  |
| 18       | 002579                                  | .050185  | .117511 |          | .079501                                 | 048905                                  |
| 19       | .014837                                 | .029776  | .112250 | 071763   | .061344                                 | .018549                                 |
|          |   |          | •112230 | 054921   | .041498                                 | .049984                                 |
| 20       | 015343                                  | .010801  | -091078 | 00000    |   |   |
| 21       | .038130                                 | .015006  | 01/050  | 023211   | •022739                                 | .055732                                 |
| 22       | .055819                                 | 030084   | -014059 | 040079   | 056614                                  | .037766                                 |
| 23       | .049458                                 | 048815   | 060154  | 055974   | 083683                                  | .042990                                 |
| 24       | .039476                                 | 045698   | 104042  | 019106   | 091107                                  | .081506                                 |
|          | *************************************** | -•042698 | 108812  | 011781   | 077069                                  | .101747                                 |
| 25       | 039592                                  | 015152   |         |          |   |   |
| 26       | 040107                                  | •015352  | 075715  | -032899  | 036540                                  | .057816                                 |
| 27       | 056802                                  | 015139   | 046837  | .013971  | 022273                                  | .052872                                 |
| 28       | 010294                                  | 029770   | 040119  | 012707   | .003987                                 | .038400                                 |
| 29       |   | 053126   | 110308  | 021052   | .006883                                 | .087438                                 |
| 2,       | .007579                                 | 111234   | 154462  | .024743  | 008636                                  | .091323                                 |
| 30       | 21222                                   |          |         |          |   | *071323                                 |
| 30       | 013881                                  | 134330   | 150733  | .069127  | 022058                                  | 050039                                  |
|          |   |          |         |          | *************************************** | •050028                                 |
| COSPECTA | 4 144                                   |          |         |          |   |   |
| COSPECIA | UM                                      |          |         |          |   |   |
| K        |   |          |         |          |   |   |
| ^        | U,V                                     | U, W     | U, T    | V,W      | V,T                                     | W, T                                    |
|          |   |          |         |          |   | .,,,                                    |
|          | 105 01                                  |          |         |          |   |   |
|          | 10E-01                                  | 10E-01   | 10E-01  | 10E-01   | 108-01                                  | 10E-02                                  |
| •        | 00000                                   |          |         |          |   | 105-02                                  |
| 0        | .023219                                 | 018335   | 015468  | 006326   | 009944                                  | 044344                                  |
| 1        | .094275                                 | 312306   | 175930  | 032024   |   | .044344                                 |
| 2        | -116237                                 | 426401   | 215820  | 091913   | 125826                                  | -616365                                 |
| 3        | • 096978                                | 432264   | 194235  | 141335   | 159034                                  | .931401                                 |
| 4        | 084903                                  | 331661   | 134851  | 041277   | 122934                                  | • 939572                                |
|          |   |          |         | 041277   | 027690                                  | •476273                                 |
| 5        | 163853                                  | 316720   | 122958  | 033413   |   |   |
| 6        | 093210                                  | 298321   | 095426  | .032617  | 007357                                  | .344819                                 |
| 7        | .037334                                 | 245230   | 081172  | 010599   | 017298                                  | .448062                                 |
| 8        | .129296                                 | 188085   |         | 044228   | 022330                                  | .409797                                 |
| 9-11     | . 044604                                | 123226   | 073911  | 041580   | 027525                                  | -265161                                 |
|          |   | • 167660 | 035891  | 022500   | 017875                                  | .189770                                 |
| 12-14    | .000201                                 | - 069703 | 01000   |          |   |   |
| 15-21    | 026607                                  | 068702   | 013227  | .026273  | 007369                                  | .097331                                 |
| 22-30    | .006144                                 | 097372   | 019576  | 007367   | 006448                                  | .116296                                 |
| 50       | • 000144                                | 039868   | 008164  | .003016  | 005832                                  | .044849                                 |
|          |   |          |         |          |   | *******                                 |

RUN NO. 85A 40M 11-16-62 1115-1231 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

| MORMAL TREA | QUADRATURE | COVADIANCE |
|-------------|------------|------------|
| MORHALIZED  | UUAURAIUKE | CUVAKIANLE |

| MONTHELL  |             |          |         |         |          |         |
|-----------|-------------|----------|---------|---------|----------|---------|
| H         | U, V        | U,W      | U.T     | V.W     | V.T      | W. T    |
|           | 0.11035     | 0.63333  | 0.18945 | 0.56340 | 0.16853  | 0.96721 |
|           | 10E 01      | 10E 00   | 10E 00  | 10E 00  | 10E 00   | 10E-01  |
| 1         | .062315     | 019443   | 111266  | 004774  | .001525  | .069954 |
| 2         | .107964     | 036086   | 156412  | 026614  | . 022124 | .082320 |
| 3         | .125341     | 037828   | 160833  | 037724  | .031819  | .062790 |
| 4         | -104313     | 004207   | 147745  | 020193  | . 025584 | .051094 |
| 5         | .088376     | .001897  | 135170  | 057594  | .013495  | .030268 |
| 6         | .089679     | .036574  | 126351  | 050470  | .014218  | .044083 |
| 7         | . 095576    | 048446   | 120913  | 020346  | .022093  | .005357 |
|           | .070698     | 028547   | 079756  | 033356  | 001984   | 039638  |
| 9         | .070281     | .000768  | 063872  | .002391 | 008196   | 014398  |
| 10        | .065493     | 008442   | 062792  | .020433 | 039948   | .003178 |
| 11        | .029863     | 028717   | 055231  | .034413 | 029107   | .012652 |
| 12        | 000232      | 028861   | 046598  | -050184 | 038423   | .025786 |
| 13        | .022768     | 050585   | 031461  | .044326 | 010025   | 014673  |
| 14        | .027736     | 020615   | 022461  | -101527 | .023018  | 011441  |
| 15        | 026279      | 019892   | .002730 | .076939 | .004550  | .009590 |
| 16        | 066014      | .016587  | .043195 | .017597 | .001336  | 022124  |
| 17        | 055471      | 008042   | .024558 | .022040 | .006431  | 033842  |
| 18        | 035780      | 002865   | .020297 | .029527 | 028803   | 016199  |
| 19        | 042445      | 016801   | .035497 | 004858  | 065933   | .007447 |
| 20        | 065435      | 000688   | .058275 | 036733  | 050880   | 026997  |
| 21        | 054592      | .017874  | .068780 | 042306  | 032129   | .009658 |
| 22        | 049782      | .006134  | .056803 | 056429  | 038482   | 018353  |
| 23        | 006778      | .022629  | .045330 | 059285  | 008380   | 038670  |
| 24        | .008788     | 006655   | .014793 | 049033  | .006878  | 036270  |
| 25        | .043013     | 013236   | .009406 | 028570  | .031249  | 027556  |
| 26        | .070041     | .003365  | .032235 | 005020  | -071004  | 032278  |
| 27        | .007349     | .011673  | .070535 | 01500B  | .017952  | 030896  |
| 28        | 065743      | .028316  | .104648 | 033024  | 025077   | 037702  |
| 29        | 059929      | 005055   | .063656 | 016427  | 042264   | 036099  |
| 30        | 063965      | .025934  | .041807 | 007525  | 032296   | .026510 |
| QUADRATUR | E SPECTRUM  |          |         |         |          |         |
| K         | U, <b>V</b> | U,W      | U,T     | V,W     | V, T     | W, T    |
|           | 10E-01      | 10E-02   | 10E-01  | 10E-01  | 10E-02   | 10E-02  |
| 1         | .384721     | 948484   | 102181  | .043643 | 106877   | .048680 |
| 2         | .497940     | 523453   | 111636  | 029451  | .072074  | .118977 |
| 3         | •443000     | 050254   | 091759  | 141935  | .136278  | .142281 |
| 4         | . 194653    | .047518  | 055185  | 095622  | .137156  | .148052 |
| 5         | .146415     | 244528   | 044655  | .015004 | .186726  | .156872 |
| 6         | .139964     | 426037   | 035754  | .020818 | .019876  | .160046 |
| 7         | . 101797    | 394186   | 024361  | .004401 | 108918   | .117481 |
| 8         | .092757     | 255165   | 015820  | .001295 | .003584  | .035562 |
| 9-11      | .076053     | 439383   | 014161  | .001679 | .034980  | .029010 |
| 12-14     | .022680     | . 262708 | 007886  | 000229  | 037414   | .074838 |
| 15-21     | .005273     | 007936   | 001794  | .010968 | 018967   | .007280 |
| 22-30     | .015886     | 084252   | 000644  | 007862  | .002191  | 006742  |
|           |             |          |         |         |          |         |

RUN NO. 85A 40M 11-16-62 1116-1231 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

| M          | U                  | ٧        | W        | T                                       |
|------------|--------------------|----------|----------|---|
|            | 0.12405            | 0.98169  | 0.32334  | 0.28932                                 |
|            | 10E 01             | 10E 00   | 10E 00   | 10E-01                                  |
| 0          | 1.000000           | 1.000000 | 1.000000 | 1 000000                                |
| 1          | .570286            | •586295  | . 355264 | 1.000000                                |
| 2          | .292019            | •348226  | .105513  | .701932                                 |
| 3          | .128482            | .235312  | .076099  | .419583                                 |
| 4          | 030754             | .101096  | 026591   | .240783<br>.088082                      |
| 12         |                    |          |          | *************************************** |
| 5          | 103909             | .038167  | 065891   | 019844                                  |
| 6          | 096168             | 082017   | 083712   | 052120                                  |
| 7          | 098364             | 181514   | 087942   | 078086                                  |
| 8          | 124176             | 233414   | 152507   | 100641                                  |
| 9          | 151252             | 229585   | 129603   | 135560                                  |
| 10         | 179818             | 193755   | 186775   | - 107740                                |
| 11         | 175310             | 208086   | 133659   | 182369                                  |
| 12         | 160854             | 233436   | 146818   | 213861                                  |
| 13         | 130335             | 259833   | 238583   | 243373                                  |
| 14         | 148535             | 217715   | 159052   | 268693                                  |
|            |                    | ******** | 134032   | 286367                                  |
| 15         | 118718             | 145678   | 071552   | 251773                                  |
| 16         | 087073             | 121803   | 120540   | 244409                                  |
| 17         | 072727             | 070224   | .011071  | 205466                                  |
| 18         | 138567             | 045193   | .100903  | 163699                                  |
| 19         | 165607             | 053355   | .119500  | 097621                                  |
| 20         | - 145320           |          |          |   |
| 21         | 145320             | 033725   | .167392  | 075629                                  |
| 22         | 043652             | •044227  | .113585  | 006404                                  |
| 23         | •052390<br>•101179 | .000892  | .027232  | .083571                                 |
| 24         | •090476            | 018313   | .061417  | •142119                                 |
| 4.7        | .090476            | 007133   | • 072544 | .151375                                 |
| 25         | .058887            | .012442  | .017381  | .121041                                 |
| 26         | 015427             | .003080  | .059788  | .097883                                 |
| 27         | .014927            | 006290   | .023336  | .095602                                 |
| 28         | .099427            | .008759  | 025595   | .150664                                 |
| 29         | .173117            | .054047  | .000182  | .180372                                 |
| 30         | -244080            | 110454   |          |   |
| 30         | *244000            | •118456  | 009801   | •133426                                 |
| POWER SPEC | TRUM               |          |          |   |
|            |                    |          |          |   |
| K          | U                  | V        | W        | <u>T</u>                                |
|            | 10E 00             | 10E 00   | 106-01   | 10E-02                                  |
| 0          | 000350             | 22224    |          |   |
| ì          | .008350            | .008906  | .008071  | .046566                                 |
| ž          | .128657            | •122263  | .153536  | .464156                                 |
| 3          | •163378<br>•157038 | -158612  | .302990  | • 543957                                |
| 4          |                    | -160071  | .384687  | .446161                                 |
|            | .122211            | .102877  | .227295  | .239323                                 |
| 5          | -104547            | .062923  | .147224  | .220245                                 |
| 6          | .077784            | .049761  | .195000  |   |
| 7          | .075255            | .037935  | .175514  | .207238                                 |
| 8          | .075091            | .024760  | .122761  | •167506<br>•132279                      |
| 9-11       | .042360            | .027642  | .127731  | _                                       |
|            |                    |          | *******  | .075362                                 |
| 12-14      | .021523            | .025398  | .098340  | .045325                                 |
| 15-21      | -025481            | .018180  | .118765  | .041104                                 |
| 22-30      | .020597            | •017026  | .088221  | .024220                                 |
|            |                    |          |          |   |

| RUN NO. | 85A    | 16M     | 11-16-62     | 1116-1231 | EST |
|---------|--------|---------|--------------|-----------|-----|
| RUN NO. | 85A    | 40M     | 11-16-62     | 1116-1231 | EST |
| 61 POI  | NT RUN | NING ME | AN. NO BLOCK | AVERAGING |     |

#### COHERENCE WITH QUADRATURE

| K       | U       | V       | W        | r        |
|---------|---------|---------|----------|----------|
|         |         |         |          |          |
|         | 10E 00  | 10E 00  | 10E 00   | 108 00   |
| 0       | .662744 | .632268 | •609363  | .734059  |
| 1       | .581011 | .731413 | .613458  | .693080  |
| 2       | .470165 | -631898 | .628576  | .622993  |
| 3       | .387380 | .528209 | . 635700 | •552301  |
| diam'r. | .384066 | .463103 | .583212  | .541433  |
| 5       | .353775 | .421516 | . 435335 | .462066  |
| 6       | .246473 | .333146 | . 320901 | • 296375 |
| 7-8     | .158720 | .331375 | . 398468 | .369141  |
| 9-11    | -140071 | .296288 | .413883  | 297670   |
| 12-15   | .056381 | .090189 | . 258823 | .154239  |
| 16-20   | -145304 | .107625 | •111321  | .097853  |
| 21-27   | .086957 | .059875 | . 190042 | .101735  |
| 28-36   | .129542 | .117098 | .097514  | .102576  |
| 37-47   | .092915 | .113584 | .073364  | •124992  |
| 48-6C   | .088247 | .105307 | . 105321 | .116493  |

### 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

### COHERENCE WITH QUADRATURE

| K     | U               | V       | w        | T        |
|-------|-----------------|---------|----------|----------|
|       | 105 00          |         |          |          |
|       | 10E 00          | 10E 00  | 10E 00   | 10E 00   |
| 0     | .897236         | .874040 | .661554  | . 892751 |
| 1     | .905263         | .924997 | .779577  | .935718  |
| 2     | .874383         | .905209 | .767227  | .912127  |
| 3     | .865303         | .847151 | .737437  | .854935  |
| 4     | .883141         | •792010 | .727979  | .764592  |
| 5     | .784185         | .789613 | .761768  | .756967  |
| 6     | <b>.</b> 602900 | .802363 | .688120  | .745356  |
| 7     | .511482         | .792142 | • 552990 | .680539  |
| 8 .   | .610036         | .815912 | . 550392 | .677262  |
| 9-11  | .583636         | .755527 | .584213  | .720699  |
| 12-14 | .375064         | .511388 | .701575  | .513375  |
| 15-21 | .373496         | .333131 | - 624565 | •513331  |
| 22-30 | .329382         | .408749 | . 403126 | .340862  |

RUN NO. 858 16M 11-16-62 1254-1347 EST

# GROSS STATISTICS

| CLEAR           | WIND SE                 | EED 6.88 M/SEC | HEND DEAL          |                    |
|-----------------|-------------------------|----------------|--------------------|--------------------|
| UNSTABLE        | SIGMA A                 |                |                    | ECTION 311 DEG     |
| LAND            | SIGMA E                 |                | SOLAR RAI          | DIATION 0.67       |
|                 | JI OHA E                | 6.1 DEG        | NET RADIA          | ATION 0.32         |
|                 |                         |                |                    |                    |
|                 |                         |                |                    |                    |
|                 | WITH NO<br>RUNNING MEAN | WITH 301 POINT | WITH 61 POINT      | 301 PT RUN MEAN    |
|                 | NONTING MEAN            | RUNNING MEAN   | RUNNING MEAN       | 10 PT BLOCK AVG    |
| VARIANCES       |                         |                |                    |                    |
|                 |                         |                |                    |                    |
| U               | 0.24807E 01             | 0 143045 00    |                    |                    |
| v               | 0.33492E 01             | 0.16386E 01    | 0.91842E 00        | 0.12070E 01        |
| Ň               | 0.48417E-00             | 0-18724E 01    | 0.11227E 01        | 0.12260E 01        |
| ï               | 0.40417E-00             | 0.46337E-00    | 0.42790E-00        | 0.19525E-00        |
| •               | 0.503835-00             | 0.47016E-01    | 0.20155E-01        | 0.37950E-01        |
| E               | 0.31571E 01             | 0.19893E 01    | 0.12345E 01        |                    |
| GUSTINESS RATIO | os                      |                |                    |                    |
|                 |                         |                |                    |                    |
| U               | 0.22893                 | 0.18606        | 0.12020            |                    |
| V               | 0.26600                 | 0.19889        | 0.13929            | 0.15968            |
| W               | 0.10114                 | 0.09894        | 0-15401<br>0-09508 | 0.16094<br>0.06423 |
|                 |                         |                | 0.07308            | 0.00423            |
| COVARIANCES     |                         |                |                    |                    |
|                 |                         |                |                    |                    |
| U, V            | 0.19378E-00             | -0.19728E-01   | 0.440455           |                    |
| U.W             | -0.48796E-00            | -0.42396E-00   | -0.44945E-02       | 0.31320E-02        |
| U.T             | -0.41940E-00            | -0.16515E-00   | -0.28642E-00       | -0.30237E-00       |
| V.W             | -0.93430E-02            | 0.24556E~01    | -0.56910E-01       | -0.14660E-00       |
| V,T             | -0.40181E-00            | -0.11916E-00   | 0.89392E-02        | -0.16263E-01       |
| WeT             | 0.60503E-01             | 0.48468E-01    | -0.69950E-01       | -0.83660E-01       |
|                 | •                       | 01404005-01    | 0.30733E-01        | 0.37548E-01        |
| WE              | -0.65919E-01            | -0.42534E-01   | 0.44437E-01        |                    |
| NORMAL TATO COM |                         |                |                    |                    |
| NORMALIZED COVA | KIANCES                 |                |                    |                    |
| U,V             | 0.06723                 | -0.01134       |                    |                    |
| U,W             | -0.44524                | -0.01126       | -0.00443           | 0.00257            |
| U,T             | -0.58980                | -0.48655       | -0.45688           | -0.62288           |
| V.W             | -0.00734                | -0.59500       | -0.41829           | -0.68500           |
| V,T             | -0.48631                | 0.02636        | 0.01290            | -0.03324           |
| W.T             | 0.19259                 | -0.40160       | -0.46501           | -0.38785           |
| ~,.             | J 6 1 7 2 3 7           | 0.32837        | 0.33093            | 0.43621            |

RUN NO. 858 16M 11-16-62 1256-1347 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| H        | U.V                | U, W             | U.T              | V,W               | V.T               | N. T               |
|----------|--------------------|------------------|------------------|-------------------|-------------------|--------------------|
|          | 0.10154            | 0.62688          | 0.13607          | 0.69311           | 0.15044           | 0.92884            |
|          | 10E 01             | 10E 00           | 108 00           | 10E 00            | 10E 00            | 10E-01             |
| 0        | 004026             | 457326           | 418443           | .012724           | 465245            | .330945            |
| 1        | .004284            | 397296           | 382758           | 001047            | 375669            | .303029            |
| 2        | .006441            | 319410           | 327524           | 015334            | 270303            | .253150            |
| 3        | .011535            | 253506           | 282554           | 017220            | 192496            | .200521            |
| 4        | .018930            | 194674           | 242893           | 011438            | 140197            | .151129            |
| 5        | -027121            | 143200           | 208806           | 004848            | 100436            | -119583            |
| 6        | .033084            | 100547           | 173864           | 002669            | 071562            | .102050            |
| 7        | .035909            | 065736           | 149179           | .003951           | 037946            | .082841            |
| 8        | .035683<br>.039638 | 038134<br>017175 | 128786<br>114028 | .003498<br>006059 | 004141<br>.017616 | .065818<br>.053311 |
| 10       | .045490            | .003721          | 091825           | 015892            | .024777           | .035209            |
| 11       | .037718            | .025923          | 057350           | 014272            | .031438           | .006178            |
| 12       | .022062            | .044973          | 018230           | . 000454          | .037213           | 020368             |
| 13       | .006113            | .064254          | .021384          | -015490           | .041002           | 038565             |
| 14       | 005754             | .081866          | .057431          | .029177           | .051076           | 054716             |
| 15       | 015139             | .095809          | .082643          | .037673           | .067218           | 066816             |
| 16       | 022901             | .108581          | .104900          | .041715           | .087182           | 084551             |
| 17       | 028860             | -116577          | .127098          | .034806           | .103251           | 101004             |
| 18       | 033892             | -112441          | .145274          | . 027489          | .110569           | 107009             |
| 19       | 043325             | .108247          | .160022          | .026889           | .109984           | 111968             |
| 20       | 050718             | .115926          | .171398          | .032521           | .113910           | 121207             |
| 21       | 049956             | .115185          | .167919          | . 034903          | .109885           | 119696             |
| 22       | 047086             | .109022          | .161371          | .032320           | .105503           | 114773             |
| 23       | 040824             | .105829          | .149492          | . 026531          | .112568           | 105487             |
| 24       | 034094             | .109735          | .139408          | .025850           | .115399           | 108008             |
| 25       | 032627             | .118700          | .131778          | .030517           | .117803           | 116121             |
| 26       | 032092             | .125557          | .127760          | .023880           | .115361           | 112831             |
| 27       | 029192             | -114948          | .121906          | .004493           | .104978           | 100758             |
| 28       | 025348             | .096971          | -115951          | 020835            | .081843           | 092303             |
| 29       | 020894             | .083915          | .107597          | 033338            | .063364           | 080573             |
| 30       | 019476             | .073672          | .089998          | 034807            | .048515           | 073195             |
| 31       | 016556             | .061385          | .070602          | 033722            | .029906           | 060316             |
| 32       | 013167             | .050720          | -050071          | 039687            | .011487           | 037328             |
| 33       | 006207             | .030227          | .028502          | 045699            | 007033            | 014013             |
| 34       | 005151             | .014080          | .014909          | 032112            | 021855            | 006533             |
| 35       | 012929             | .002882          | .023875          | 023163            | 031541            | 011923             |
| 36       | 014385             | 005890           | .032523          | 020690            | 037224            | 015219             |
| 37       | 001071             | 000023           | .031528          | 022417            | 040153            | 010357             |
| 38       | .016557            | .007865          | .027128          | 028635            | 052677            | 002475             |
| 39       | .022531            | .003536          | .021232          | 032601            | 055392            | .004813            |
| 40       | .027988            | 005357           | .015599          | 027966            | 042841            | .009957            |
| 41       | .033715            | 006542           | .010774          | 025958            | 029271            | .006605            |
| 42       | .036196            | .000670          | .001970          | 021756            | 013111            | 003741             |
| 43       | .030559            | 002693           | 002761           | 014310            | 005448            | 012355             |
| 44       | .021459            | 014643           | 007330           | 005826            | .007658           | 005232             |
| 45       | .010425            | 017989           | 008084           | .009480           | .020665           | ~.000913           |
| 46       | .005448            | 017873           | 008556           | .021587           | .021304           | .002123            |
| 47       | .001138            | 018622           | 003170           | .019419           | .012767           | .001813            |
| 48       | 002032             | 024265           | 003975           | .015986           | .010983           | 000557             |
| 49       | 007468             | 034744           | 009440           | .019292           | .007547           | .003880            |
| 50       | 010690             | 035397           | 016140           | .018808           | .001114           | .004473            |
| 51       | 013605             | 030343           | 016519           | .020070           | 004444            | .009945            |
| 52       | 010192             | 029620           | 020108           | . 022606          | 009707            | .019197            |
| 53<br>54 | 004081<br>.005063  | 026245<br>022342 | 022245<br>027810 | .010086<br>002796 | 010942<br>015817  | •024692<br>•031526 |
|          |                    |                  |                  |                   |                   |                    |
| 55       | .009771            | 021727           | 029789           | .002760           | 029665            | .034288            |
| 56       | .004300            | 017943           | 024446           | .018250           | 032166            | .027429            |
| 57       | .000742            | 021413           | 015858           | .020776           | 019480            | .030774            |
| 58       | 000937             | 015844           | 008988           | .009135           | 013251            | .039065            |
| 59       | .002259            | 007933           | 009505           | 007069            | 012784            | .04/:583           |
| 60       | .006503            | 002163           | 007184           | 019486            | 009342            | .040134            |

RUN NO. 858 16M 11-16-62 1254-1347 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

#### NORMALIZED QUADRATURE COVARIANCE

| М        | U,V                | U,W                | U.T                | V.W                | V,T                | W. T              |
|----------|--------------------|--------------------|--------------------|--------------------|--------------------|-------------------|
|          | 0.10154            | 0.62688            | 0.13607            | 0.69311            | 0.15044            | 0.92884           |
|          | 10E 01             | 10E 00             | 10E 00             | 10E 00             | 10E 00             | 10E-01            |
| 1        | .009496            | 056886             | 050796             | .007415            | 021231             | .010817           |
| 2        | .020301            | 080549             | 083801             | .007794            | 020631             | .015256           |
| 3        | .019310            | 078994             | 097205             | .003016            | 013893             | .020000           |
| 4        | .012928            | 064826             | 101556             | 009039             | 009688             | .019948           |
| 5        | .004044            | 059096             | 101152             | 012747             | 003938             | .019613           |
| 6        | 004963<br>004529   | 054128             | 096526<br>096078   | 012595             | .001247<br>.000377 | .029802           |
| 7        | 004527             | 051032<br>049804   | 098034             | 017989<br>010687   | 008380             | .042217           |
| 9        | 019636             | 049822             | 101202             | 012065             | 015999             | .037252           |
| 10       | 027085             | 056068             | 103162             | 025108             | 028535             | .027241           |
| 11       | 021533             | 058825             | 110760             | 030019             | 028110             | .032638           |
| 12       | 018614             | 051712             | 111015             | 033677             | 023507             | .038315           |
| 13       | 016162             | 051695             | 106054             | 035260             | 025409             | .041018           |
| 14       | 023188             | 049114             | 094183             | 037790             | 034555             | .040573           |
| 15       | 033440             | 045305             | 074770             | 036244             | 046208             | .042206           |
| 16       | 041658             | 033603             | 056368             | 036087             | 050650             | .038185           |
| 17       | 052844             | 021522             | 037233             | 040768             | 046836             | .028164           |
| 18       | 058570             | 014198             | 019708             | 039179             | 040970             | .025549           |
| 19       | 054864             | 013280             | 012470             | 033614             | 032846             | .026049           |
| 20       | 043869             | 009304             | 011875             | 028144             | 032221             | •C28282           |
| 21       | 031253             | 000598             | 018829             | 023772             | 030381             | .029884           |
| 22       | 019254             | .009254            | 022510             | 016591             | 029093             | .036504           |
| 23       | 012300             | .020538            | 022234             | 016297             | 026426             | .035235           |
| 24       | 011171             | .026360            | 021458             | 007438             | 023282             | .036545           |
| 25       | 019731             | .024904            | 012199             | • 005906           | 016944             | .032865           |
| 26       | 032655             | .025595            | .001931            | .013592            | 016395             | .018830           |
| 27       | 045939             | .023496            | .017615            | .008718            | 017378             | 001816            |
| 28       | 050559             | .015183            | .024664            | .008489            | 019893             | 005629            |
| 29<br>30 | 054912<br>053563   | .012222<br>.015033 | .032906<br>.037486 | .006949            | 027458<br>028328   | 005628<br>.002225 |
| 31       | 051895             | .016409            | .044112            | .005431            | 028166             | .002608           |
| 32       | 052750             | .018942            | .050476            | .002004            | 022692             | 003279            |
| 33       | 051395             | .018206            | .053944            | 003394             | 017991             | 013772            |
| 34       | 047782             | .011167            | .053225            | 005034             | 011317             | 017448            |
| 35       | 037642             | .005556            | .049988            | .005613            | .000012            | 019418            |
| 36       | 018546             | .009328            | .043179            | .013754            | .015826            | 021294            |
| 37       | .000418            | .015263            | .039662            | .018852            | .023515            | 024427            |
| 38       | .019240            | .023137            | .035689            | .019854            | .027273            | 032596            |
| 39       | .045219            | .032092            | .025183            | .023023            | .026202            | 034485            |
| 40       | .069537            | .038307            | .015883            | .030299            | .026641            | 033711            |
| 41       | .082821            | .039177            | .012456            | .040362            | .034349            | 030082            |
| 42       | .090797            | .035076            | .011514            | .050348            | • 039932           | 019306            |
| 43       | .091976            | .027007            | .010044            | .049784            | .043721            | 016998            |
| 44       | .100461<br>.106234 | .012053<br>.009436 | .002130<br>012671  | .040588<br>.028798 | .044352<br>.040686 | 021709<br>017679  |
| 46       | .101616            | • 006056           | 027495             | .020790            | • 027569           | 011294            |
| 47       | .090114            | .001350            | 033888             | .019935            | .017470            | .005120           |
| 48       | .074313            | 004480             | 035135             | .021760            | .012758            | .013220           |
| 49       | .063327            | 008628             | 031917             | .023431            | .010646            | .011360           |
| 50       | .050116            | 013965             | 026390             | .010688            | .007786            | .005854           |
| 51       | .032853            | 018221             | 016840             | .000596            | .004858            | .005589           |
| 52       | .016921            | 022685             | 009085             | 012516             | .000566            | .002752           |
| 53       | .000400            | 024812             | 002191             | 018416             | 008883             | 002189            |
| 54       | 014568             | 024951             | .000572            | 016594             | 013758             | 001673            |
| 55       | 031914             | 018028             | .002915            | 018758             | 015437             | .000596           |
| 56       | 046924             | 009590             | .004712            | 016925             | 012663             | .007784           |
| 57       | 056425             | 001849             | .004919            | 013544             | 008907             | .015269           |
| 58       | 061601             | .009895            | .008319            | 015163             | ~.008975           | .017322           |
| 59       | 063655             | .009973            | .005270            | 021475             | 016835             | .019079           |
| 60       | 063359             | .009223            | 002954             | 023377             | 028598             | .022589           |

RUN NO. 85B 16M 11-16-62 1254-1347 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

|            | NO TOUCHNESS.      |                  |   |                  |
|------------|--------------------|------------------|---|------------------|
| н          | U                  | ٧                | CASTON AND AND AND AND AND AND AND AND AND AN | A THE PARTY OF   |
|            | 7-17 Landy (1)     |                  | TALL IN SECTION FOR                           |                  |
|            | 0.91835            | 0.11226          | 0.42792                                       | 0.20161          |
|            | 10E 00             | 10E 01           | 10E 00  | 10E-01           |
| 0          | 1.000000           | 1.000000         | 1.000000                                      | 1.000000         |
| 1          | .832064            | -786636          | .705968                                       | .827122          |
| ž          | .644014            | .545846          | .424748                                       | .623246          |
| 3          | .497169            | .372742          | . 255591                                      | .475302          |
| 4          | .376917            | .253686          | .153973                                       | .373321          |
| KIN T      |                    |                  |   |                  |
| 5          | .279328            | .179119          | .092474                                       | .298345          |
| 6          | .198221            | -129621          | .038796                                       | . 246452         |
| 7          | .130929            | .090268          | 016964  | .200669          |
| 8          | .073860            | .049429          | 057551  | .152848          |
| 9          | .038322            | .003738          | 077433  | .111885          |
|            |                    |                  |   |                  |
| 10         | 007566             | 040613           | ~.098292                                      | .082464          |
| 11         | 055503             | 069631           | 122433  | .046401          |
| 12         | 096363             | 083317           | 128251  | .005246          |
| 13         | 135216             | 085694           | 115035  | 038861           |
| 14         | 167624             | 090665           | 098452  | 078437           |
| 16         | 190867             | - 100242         | - 001228                                      | 118141           |
| 15<br>16   | 213736             | 100362<br>120709 | 091238<br>087579                              | 115141           |
| 17         | 224328             | 134173           |   | 153800           |
|            | 232024             | 141644           | 087100  | 184097<br>207792 |
| 18         |                    |                  | 089722  |                  |
| 19         | 236763             | 149217           | 098183  | 221981           |
| 20         | 233806             | 154530           | 113660  | 238554           |
| 21         | 230715             | 156456           | -: 126168                                     | 245496           |
| 22         | 219778             | 165053           | 132841  | 253498           |
| 23         | 214440             | 179399           | 130501  | 259194           |
| 24         | 204297             | 193831           | 141894  | 254447           |
| -          | 3231271            |                  |   | ••••             |
| 25         | 196006             | 197784           | 157193  | 253366           |
| 26         | 195679             | 193427           | 167411  | 251509           |
| 27         | 185171             | 191044           | 147708  | 237116           |
| 28         | 171600             | 169901           | 137099  | 212726           |
| 29         | 150545             | 147417           | 125605  | 195062           |
|            |                    |                  |   |                  |
| 30         | 131052             | 125646           | 105407  | 170800           |
| 31         | 102762             | 109029           | 064246  | 132580           |
| 32         | 067530             | 100887           | 030431  | 099867           |
| 33         | 034719             | 085645           | .005553                                       | 075356           |
| 34         | 016736             | 067257           | .033413                                       | 049340           |
| 35         | 015618             | 055044           | .036061                                       | 032297           |
| 36         | 011994             | 039935           | .023903                                       | 024118           |
| 37         | 004882             | 029202           | .007938                                       | 019625           |
| 36         | .001797            | 014666           | .006682                                       | 003700           |
| 39         | .011617            | .001879          | .006045                                       | 001366           |
|            |                    | 1002017          | ***************************************       |                  |
| 40         | .016443            | .014849          | .004774                                       | 015226           |
| 41         | .017224            | .016917          | .012148                                       | 017655           |
| 42         | .018028            | .007483          | .011465                                       | 016845           |
| 43         | .028108            | 003690           | .006601                                       | 006166           |
| 44         | .035646            | 020743           | .021447                                       | .003710          |
|            |                    |                  |   |                  |
| 45         | .045637            | 027885           | .031340                                       | .003718          |
| 46         | .049226            | 021162           | .022880                                       | .001736          |
| 47         | .049219            | 011317           | .029813                                       | .003158          |
| 48         | .047047            | 003788           | .045654                                       | .001731          |
| 49         | .049953            | .015843          | .063612                                       | .000784          |
| 50         | .048777            | .030074          | .045293                                       | 002588           |
| 51         | .048777<br>.044342 | .030976          | .012932                                       | 003908           |
| 52         | .042360            | .053998          | 011407  | •000025          |
|            |                    | .052082          | ∂31250  | •001728          |
| 53<br>54   | .041041<br>.034322 | .052082          | 030607  | .008464          |
| <b>7</b> T | 1037366            | . 5 + 5 5 7 7    | - 6 0 3 0 0 0 1                               | .000707          |
| 55         | .027982            | .049992          | 013278  | .021894          |
| 56         | .014258            | .054263          | 000433  | .018708          |
| 57         | 001142             | .044553          | .014565                                       | .010403          |
| 58         | 003361             | .033331          | .014102                                       | .012881          |
| 59         | 003146             | .033285          | .004476                                       | .015828          |
|            |                    |                  | 001.77  |                  |
| 60         | 010633             | .030003          | .004558                                       | .015541          |

RUN NO. 858 16M 11-16-62 1254-1347 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING COSPECTRUM

| K         | U.V              | U,W              | U.T              | V.W      | V.T                | N. T              |
|-----------|------------------|------------------|------------------|----------|--------------------|-------------------|
|           | 10E-01           | 10E-01           | 10E-01           | 10E-02   | 10E-01             | 105-02            |
| 0         | 008385           |                  |                  |          | 105-01             | 10E-02            |
| 1         | .058847          | 033154           | 016051           | - 102567 | 005554             | .03799            |
| 2         | .142920          | 363432           | 121315           | . 474548 | 063386             | 48560             |
| 3         | 139852           | 489353           | 135481           | 053625   | 094097             | -642841           |
| 4         | 005158           | 516662           | 126945           | 848569   | 112750             | •645251           |
| •         | ~.003138         | 333351           | 067441           | 623683   | 072513             | . 363661          |
| 5         | 091089           | 200264           | ****             |          |                    | 130300            |
| 6         | 090930           |                  | 021209           | • 270775 | 034758             | .147822           |
| 7-8       | 060051           | 163442<br>115916 | 006148           | • 405435 | 038269             | -108394           |
| 9-11      | .000263          |                  | 009471           | .055330  | 035559             | . 095654          |
| 12-15     | .004728          | 079201<br>041475 | 013981           | 019488   | 023392             | .086710           |
|           |                  | -+041412         | 007673           | • 005205 | 010735             | .058060           |
| 16-20     | 008249           | 022740           | - 001410         |          |                    | 11071             |
| 21-27     | .003410          | 016024           | 001412<br>002870 | . 155857 | 011155             | .018770           |
| 28-36     | 002514           | 008649           |                  | .025630  | 006351             | .011301           |
| 37-47     | 002929           | 006840           | 001229           | .054618  | 003380             | .000048           |
| 48-60     | 002646           | 003998           | 000674<br>000314 | -011304  | 002384             | .005058           |
|           |                  | 0003776          | 000314           | .011838  | 001649             | .001003           |
| QUADRATU  | RE SPECTRUM      |                  |                  |          |                    |                   |
| K         |                  |                  |                  |          |                    |                   |
| •         | U, V             | U,W              | U.T              | V,W      | V, T               | W. T              |
|           | 10E-01           | 10E-01           | 105-02           |          |                    |                   |
| •         |                  | 100 01           | 10E-02           | 106-01   | 10E-02             | 10E-02            |
| 1         | 230608           | 059697           | 358559           | 072837   | - 204401           |                   |
| 2         | 170767           | 122156           | 506920           | 101435   | 294681             | -163738           |
| 3         | .044417          | 149847           | 563317           | 059053   | 240035             | -174685           |
| 5         | .051627          | 103884           | 312311           | .002240  | 055521             | •108352           |
| ,         | 018599           | 061909           | 171006           | .020306  | .048112<br>.010870 | .008953           |
| 6         | 000000           |                  |                  |          | *010810            | .014052           |
| 7-8       | .089908          | 022239           | 154561           | .037869  | .052137            | 025150            |
| 9-11      | .015918          | 031721           | 032748           | 001533   | .000619            | .025158           |
| 12-15     | -024615          | 038408           | 078552           | .003782  | 031339             | •005366           |
| 16-20     | .010418          | 030696           | 049836           | .004954  | 028935             | .001382           |
| 10-20     | .009986          | 016615           | 018900           | .010325  | 023913             | 005236<br>-012456 |
| 21-27     | 000307           | - 000444         |                  |          | 1023723            | • 012436          |
| 28-36     | 001242           | 009646           | 007953           | 000189   | 008613             | .000801           |
| 37-47     | 002294           | 001574           | 004625           | -001042  | 008197             | .000265           |
| 48-60     | 000133           | 000179           | .000444          | 000227   | 002689             | .001792           |
|           | ********         | 001481           | .000068          | .000209  | 000273             | 000722            |
| POWER SPE | CTRUM            |                  |                  |          |                    |                   |
| K         | U                |                  | v                |          |                    |                   |
|           |                  |                  | •                | H        |                    | T                 |
|           | 10E 0            | 0                | 10E 00           | 10E-     | 01                 | 105.00            |
| 0         | .0126            | 5.2              |                  |          |                    | 10E-02            |
| 1         | -1087            |                  | .012323          | .017     | 288                | .041961           |
| 2         | -1404            |                  | -120464          | . 254    | 923                | .313185           |
| 3         | .1528            |                  | -146528          | . 383    | 940                | .346036           |
| 4         | .1034            |                  | .144375          | . 446    | 810                | -326361           |
|           | •1034            | 20               | .094903          | . 328    |                    | .181483           |
| 5         | .0632            | 26               |                  |          |                    | •101403           |
| 6         | .0480            |                  | .067767          | .258     | 183                | .085713           |
| 7-8       | .03559           |                  | .066967          | - 284    |                    | .076639           |
| 9-11      |                  |                  | .053613          | . 245    |                    | .074299           |
| 12-15     | •02634<br>•01594 |                  | .033929          | . 1346   |                    | .059153           |
|           | •0124            | 7.3              | .025717          | . 1066   |                    | .037547           |
| 16-20     | .00872           | 12               |                  |          |                    | 141,500           |
| 21-27     | .00659           | _                | .019097          | .0796    | 61                 | .025367           |
| 28-36     | .00392           |                  | .009716          | .0608    |                    | .015622           |
| 37-47     | .00292           |                  | .006472          | . 0337   |                    | .009612           |
| 8-6C      | •00213           |                  | .004533          | . 0267   |                    | .005967           |
|           | •00213           | · C              | .002989          | .0183    | -                  | .004215           |
|           |                  |                  |                  |          |                    | +004513           |

NUN NO. 858 16M 11-16-62 1254-1347 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

| H              | U,V      | U.W     | U,T      | V, W             | V, T             | W. T               |
|----------------|----------|---------|----------|------------------|------------------|--------------------|
|                | 0.12172  | 0.48566 | 0.21413  | 0.48943          | 0.21579          | 0.86102            |
|                | 10E 01   | 10E 00  | 10E 00   | 10E 00           | 10E 00           | 10E-01             |
| 0              | .002573  | 622601  | 684652   | 033229           | 387693           | . 436094           |
| ĭ              | 008550   | 295189  | 524328   | .044313          | 259447           | .218707            |
| 2              | 060382   | 105278  | 307413   | .079272          | 154113           | .030490            |
| 3              | 036062   | 037722  | 201029   | 015742           | 136846           | .004286            |
| 4              | 010023   | .009428 | 096469   | 048732           | 122772           | 026238             |
|                | 014204   | 042704  | 0.31.000 | - 020024         | 101204           | 03700/             |
| 6              | .016396  | .062796 | 021889   | 028026           | 103384<br>099413 | 037806             |
| 7              | .040256  | .063026 | .026218  | 078118<br>061988 | 044891           | .002292<br>.011477 |
| 8              | .065068  | .057599 | .068439  | 041679           | .015542          | 008464             |
| 9              | .029395  | .176988 | .152738  | 000418           | .075241          | 077863             |
|                | .027373  | .110700 | .132136  | 000416           | .013241          | 011663             |
| 10             | .022342  | .073943 | .118566  | .028582          | .082783          | 041037             |
| 11             | .038434  | .040699 | .096280  | 030563           | .087524          | 005386             |
| 12             | .014953  | .118648 | .130458  | 005970           | .094295          | 038570             |
| 13             | .039726  | .052437 | .116002  | 021046           | .085227          | 037493             |
| 14             | .066564  | 039835  | .064177  | 004188           | .062962          | 020828             |
| 15             | .007022  | 020569  | .059730  | .027765          | .078415          | 036157             |
| 16             | 034001   | 060624  | .041466  | .060527          | .091407          | .011364            |
| 17             | 017948   | 101158  | .022899  | 014754           | .078202          | .047600            |
| 18             | 030496   | 030559  | .063832  | .030393          | .096035          | .001435            |
| 19             | 051020   | .087760 | .116501  | .062570          | .125525          | 083379             |
| 20             | - 040545 | 140010  | 100027   | 002244           | 150202           | 152027             |
| 20             | 069545   | .148810 | .198827  | .082344          | .159303          | 153037             |
| 21             | 083811   | .095451 | .209408  | .041630          | .155343          | 108885             |
| 22             | 067878   | .082075 | -191578  | .018571          | .120347          | 080442             |
| 23             | 048776   | .076899 | -180445  | .000449          | .109703          | 040075             |
| 24             | 026452   | .066114 | .116142  | 068931           | .101352          | .005325            |
| 25             | 030214   | .076971 | .064645  | 075014           | .127127          | .024540            |
| 26             | 068980   | .091734 | .032433  | .023426          | .170230          | 003784             |
| 27             | 070879   | 019939  | 031256   | .036722          | .167502          | .013645            |
| 28             | 101023   | .007149 | 060470   | .070570          | .125139          | 010992             |
| 29             | 076874   | 040898  | 098621   | .060860          | .055831          | .003358            |
| 30             | .004310  | 069455  | 153766   | 003561           | 010346           | .053169            |
|                |          |         |          |                  |                  |                    |
| COSPECTRU      | IM       |         |          |                  |                  |                    |
| K              | U,V      | U, W    | U.T      | V.W              | V.T              | W <sub>0</sub> T   |
|                |          |         |          |                  |                  |                    |
|                | 10E-01   | 10E-01  | 102-01   | 10E-02           | 10E-01           | 10E-02             |
| 0              | .032429  | 026185  | 041039   | 119425           | 030112           | .047080            |
| 1              | .146719  | 243747  | 298030   | 650629           | 238894           | .377470            |
| 2              | 107097   | 253682  | 254480   | 107679           | 179640           | .321265            |
| 3              | 278854   | 334590  | 219947   | .713499          | 104798           | .284348            |
| 4              | 126738   | 364314  | 193320   | .791570          | 058852           | 17855              |
| 5              | 037719   | 204820  | 112233   | .542335          | 017177           | .234552            |
| 6              | 049240   | 120233  | 064809   | .691647          | .001417          | .179201            |
| 7              | .031478  | 188442  | 078110   | .343720          | 017003           | .291660            |
| 8              | .119702  | 175931  | 055845   | 048305           | 034635           | .255419            |
| 9-11           | .082800  | 123080  | 041190   | 360920           | 035225           | .223624            |
| 12-14          | .043185  | 076934  | 021857   | 164046           | 017721           | .086549            |
| 12-14<br>15-21 | .024058  | 077390  | 017322   | 490820           | 016086           | -115156            |
|                |          | 069398  | 017322   | 012578           |                  |                    |
| 22-30          | 022159   | 007378  | 005407   | 015218           | 006971           | .048471            |

RUN NO. 85B 16M 11-16-62 1254-1347 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

#### NORMALIZED QUADRATURE COVARIANCE

| M           | U,V      | U.W      | U,T     | V.W     | V,T     | W.T     |
|-------------|----------|----------|---------|---------|---------|---------|
|             | 0.12172  | 0.48566  | 0.21413 | 0.48943 | 0.21579 | 0.86102 |
|             | 10E 01   | 10E 00   | 10E 00  | 10E 00  | 10E 00  | 10E-01  |
| 1           | 033638   | 029708   | 095422  | 038946  | 031557  | .084767 |
| 2           | 054188   | .083229  | 113906  | 059833  | 042317  | .158517 |
| 3           | 070165   | .097061  | 118672  | 048972  | 029291  | .154839 |
| 4           | .015957  | .123827  | 127162  | 004890  | .008403 | .135320 |
| 5           | .022165  | .120383  | 133957  | 027542  | .003313 | .145694 |
| 6           | 007661   | .109808  | 133830  | 053778  | 012468  | .132716 |
| 7           | .012813  | .087558  | 109289  | 036905  | .002319 | .084745 |
|             | .021614  | .051031  | 094291  | 092891  | .007043 | .045122 |
| 9           | .010786  | .063517  | 073533  | 059985  | .003578 | .083472 |
| 10          | 014841   | .041670  | 047584  | 075468  | 002674  | .048662 |
| 11          | 029045   | 018706   | 000787  | 070920  | 021988  | 006193  |
| 12          | 033473   | 001999   | .006263 | 061929  | 024666  | 035317  |
| 13          | 016931   | 039585   | .007436 | 043172  | 062369  | 065330  |
| 14          | 012174   | 053665   | 013035  | 023751  | 047690  | 077070  |
| 15          | .052628  | 069567   | 033504  | .016343 | 032495  | 081717  |
| 16          | .061143  | 057714   | 050870  | .050303 | 002744  | 040017  |
| 17          | .034078  | 007615   | 041564  | .037326 | 008500  | .007748 |
| 18          | .068534  | .036587  | 057900  | .020294 | .021550 | .041101 |
| 19          | .080263  | .045260  | 076096  | .081669 | .041072 | .086976 |
| 20          | .089651  | .094724  | 061486  | -087721 | .033711 | .082618 |
| 21          | .055319  | .051427  | 009609  | .084178 | .068582 | .025686 |
| 22          | .069405  | 036982   | 008007  | -114857 | .077241 | 006449  |
| 23          | .029598  | 054018   | .042351 | .089183 | .079445 | 039890  |
| 24          | .006114  | 096812   | .079511 | .093515 | .037314 | 057543  |
| 25          | 081662   | 074281   | .119707 | -019600 | 044960  | 072492  |
| 26          | 114440   | 059654   | .149451 | .025608 | 081544  | 067626  |
| 27          | 106000   | 024914   | .143521 | 013257  | 087349  | 075939  |
| 28          | 061138   | 023561   | .116303 | .032990 | 070958  | 046503  |
| 29          | 076734   | 041834   | .122412 | .032838 | 066294  | 065683  |
| 30          | 086471   | 028820   | .106453 | 001085  | 078694  | 048764  |
| QUADRATURE  | SPECTRUM |          |         |         |         |         |
| K           | U,V      | U.W      | U, T    | V.W     | V.T     | W.T     |
|             | 10E-01   | 10E-01   | 10E-01  | 10E-01  | 10E-02  | 10E-02  |
| 1           | .111795  | -139108  | 128042  | 122451  | 184150  | .307680 |
| 2<br>3<br>4 | 106262   | .167289  | 096368  | 169299  | 183205  | .363456 |
| 3           | 078569   | . 201895 | 084624  | 063230  | .065734 | .478098 |
|             | .060044  | .151838  | 083871  | .037536 | .059736 | .404035 |
| 5           | 113400   | .010904  | 033889  | .003707 | 268982  | -112751 |
| 6           | 200420   | 013587   | 001497  | 023963  | 195836  | .054933 |
| 7           | 154088   | .032822  | 009380  | 044386  | 083737  | .170970 |
| 8           | 087193   | 019611   | 014219  | 037474  | 048168  | .104668 |
| 9-11        | 067984   | 028923   | 012100  | 034123  | 120887  | .017608 |
| 12-14       | 019642   | 023107   | 010991  | 010185  | 061913  | .049032 |
| 15-21       | .052220  | 025640   | 004744  | .011802 | .033362 | 019354  |
| 22-30       | 043583   | 027337   | 000921  | 005038  | 027527  | 003626  |

RUN NO. 85B 16M 11-16-62 1254-1347 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE NORMALIZED AUTOCOVARIANCE

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| H            | U        | 10 1 V   | W        | T        |
|--------------|----------|----------|----------|----------|
|              | 0.12078  | 0.12266  | 0.19529  | 0.37962  |
|              | 10E 01   | 10E 01   | 10E 00   | 10E-01   |
| 0            | 1.000000 | 1.000000 | 1.000000 | 1.000000 |
| 1            | .591966  | .657261  | .166018  | .758637  |
| Ž            | .323663  | .408552  | .016519  | .493327  |
| 3            | .204039  | .264858  | 061550   | •322649  |
| 4            | .085882  | .173063  | 089020   | .196298  |
|              |          | 11000/   | 007715   | 100/05   |
| 5            | 015933   | .110394  | 083315   | •102495  |
| 6            | 096632   | .089026  | 031069   | .031445  |
| 7            | 137160   | 003259   | .007565  | 038612   |
| 8            | 152663   | 063852   | 010448   | 120307   |
| 9            | 214941   | 126009   | 167611   | 197020   |
| 10           | 157423   | 172107   | 030935   | 214195   |
| 11           | 127519   | 265284   | 048470   | 221972   |
| 12           | 168455   | 277954   | 192870   | 236473   |
| 13           | 122645   | 280317   | 035469   | 243829   |
| . 14         | 026445   | 274475   | 020690   | 198053   |
|              | 031730   | 250444   | 003007   | - 100530 |
| 15           | 031739   | 258446   | .003087  | 189539   |
| 16           | .028936  | 237996   | .083953  | 140100   |
| 17           | .050214  | 191200   | .140045  | 109044   |
| 18           | .003156  | 153613   | -017153  | 139099   |
| 19           | 078348   | 149202   | 105523   | 193325   |
| 20           | 174451   | 206693   | 220883   | 283502   |
| 21           | 162301   | 228388   | 029541   | 296687   |
| 22           | 173851   | 166964   | 110315   | 254703   |
| 23           | 225904   | 118256   | 001602   | 200495   |
| 24           | 204971   | 069884   | .031862  | 113117   |
| 25           | 173229   | 025356   | .022510  | 039640   |
| 26           | 146564   | 027058   | 048530   | .004247  |
| 27           | .006904  | .022295  | 018689   | .047999  |
| 28           | .060102  | .077189  | 061303   | .073028  |
| 29           | .119253  | .073210  | .028253  | -118419  |
| 30           | .176003  | .016484  | .086431  | .176368  |
|              |          |          |          |          |
| POWER SPECTR | UM       |          |          |          |
| κ            | U        | ٧        | W        | T        |
|              | 10E 00   | 10E 00   | 10E-01   | 10E-02   |
| 0            | .023703  | -025924  | .004566  | .105725  |
| ī            | .168573  | .255497  | .073566  | .859033  |
| 2            | .153954  | .245056  | .090052  | .773388  |
| 3            | .165885  | .171407  | .114007  | .595971  |
| 4            | .154086  | .087666  | .119571  | .414374  |
| 2            | 00/0/5   | 051240   | 074.044  | 222472   |
| 5            | .084065  | .051348  | .076066  | .223472  |
| 6            | .053642  | .051943  | .067052  | -138326  |
| 7            | .060308  | .064083  | .1288/7  | .185348  |
| 8            | .045526  | .051348  | .128076  | .139977  |
| 9-11         | .034768  | .038508  | .091501  | .107689  |
| 12-14        | .028222  | .026815  | .059230  | .052835  |
| 15-21        | .023590  | .018097  | .070396  | .038989  |
| 22-30        | .019677  | .014890  | .096564  | .023347  |
|              | -        |          |          |          |

#### RUN NO. 858 40M 11-16-62 1254-1347 EST

#### GROSS STATISTICS

| CLEAR          | WIND SE      | PEED 7.47 M/SEC | WIND DIRE                               | CTION 316 DEG   |
|----------------|--------------|-----------------|---|-----------------|
| UNSTABLE       | SIGMA A      | 12.4 DEG        | SOLAR RAC                               | DIATION 0.67    |
| LAND           | SIGMA E      | 7.7 DEG         | NET RADIA                               | TION 0.32       |
|                |              |                 |   |                 |
|                |              |                 |   |                 |
|                | WITH NO      | WITH 301 POINT  | WITH 61 POINT                           | 301 PT RUN MEAN |
|                | RUNNING MEAN | RUNNING MEAN    | RUNNING MEAN                            | 10 PT BLOCK AVG |
|                |              |                 |   |                 |
| VARIANCES      |              |                 |   |                 |
|                |              |                 |   |                 |
| U              | 0.35405E 01  | 0.21431E 01     | 0.11830E 01                             | 0.16864E 01     |
| ٧              | 0.26742E 01  | 0.13585E 01     | 0.91275E 00                             | 0.87896E 00     |
| W              | 0.73662E 00  | 0.71495E 00     | 0.61654E 00                             | 0.34621E-00     |
| 7              | 0.19377E-00  | 0.29574E-01     | 0.13289E-01                             | 0.24582E-01     |
| E              | 0.34757E 01  | 0.21125E 01     | 0.13561E 01                             |                 |
| _              |              |                 |   |                 |
| CHETINESS DATE | .05          |                 |   |                 |
| GUSTINESS RATI | <br>         |                 |   |                 |
|                |              |                 |   |                 |
| U              | 0.25189      | 0.19598         | 0.14560                                 | 0.17384         |
| ٧              | 0.21892      | 0.15603         | 0.12790                                 | 0.12551         |
| W              | 0.11490      | 0.11319         | 0.10511                                 | 0.07877         |
|                |              |                 |   |                 |
| COVARIANCES    |              |                 |   |                 |
|                |              |                 |   |                 |
| U,V            | 0.27884E-01  | -0.31587E-01    | 0.13258E-02                             | -0.51380E-01    |
| Ü.W            | -0.69088E 00 | -0.52004E 00    | -0.31277E-00                            | -0.41380E-00    |
| Ŭ,Ť            | -0.47809E-00 | -0.16554E-00    | -0.54603E-01                            | -0.14976E-00    |
| V.W            | -0.23795E-02 | 0.50838E-01     | 0.32548E-01                             | 0.51491E-01     |
| V.T            | -0.24557E-00 | -0.58471E-01    | -0.43548E-01                            | -0.40104E-01    |
| h,T            | 0.87902E-01  | 0.54187E-01     | 0.33505E-01                             | 0.41414E-01     |
| *              |              |                 | *************************************** |                 |
| NE             | 0.33390E-00  | 0.28544E-00     | 0.22663E-00                             |                 |
| NC             | (7-333902-00 | 0.285446-00     | 0.220036-00                             |                 |
|                |              |                 |   |                 |
| NORMALIZED COV | ARIANCES     |                 |   |                 |
|                |              |                 |   |                 |
| U,V            | 0.00906      | -0.01851        | 0.00128                                 | -0.04220        |
| U,W            | -0.42781     | -0.42012        | -0.36623                                | -0.54155        |
| U,T            | -0.57722     | -0.65755        | -0.43549                                | -0.73552        |
| V.W            | -0.00170     | 0.05158         | 0.04339                                 | 0.09334         |
| V,T            | -0.34114     | -0.29171        | -0.39540                                | -0.27283        |
| W,T            | 0.23267      | 0.37265         | 0.37015                                 | 0.44891         |
|                |              |                 |   |                 |

RUN NO. 85B 40M 11-16-62 1254-1347 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| HUNHAL   | IZED COSPECTION  | COAMLIANC:       |                  |                      |                  |                    |
|----------|------------------|------------------|------------------|----------------------|------------------|--------------------|
| H        | U,V              | U,W              | U, T             | V, W                 | V.T              | WyT                |
|          | 0.10390          | 0.85402          | 0.12539          | 0.75019              | 0.11014          | 0.90535            |
|          | 10E 01           | 10E 00           | 10E 00           | 10E 00               | 10E 00           | 10E-01             |
| 0        | .001280          | 366250           | 435540           | .043480              | 395386           | .370122            |
| 1        | 005665           | 348932           | 418670           | .050868              | 333297           | .335794            |
| 2        | 010192           | 302836           | 378738           | .050347              | 251362           | .280402            |
| 3        | 015990           | 248479           | 332751           | . 039947             | 189539           | .227091            |
| 4        | 020096           | 201113           | 287797           | .033733              | 139305           | .176973            |
| 5        | 020694           | 157370           | 245261           | .024931              | 093181           | .133050            |
| 6        | 022016           | 115284           | 208797           | .028559              | 051410           | .092806            |
| 7        | 018541           | 072238           | 174336           | .032175              | 018235           | .055231            |
| 8        | 011434           | 043405           | 136304           | .034875              | .008861          | .024951            |
| 9        | 008334           | 027747           | 093636           | .031106              | .025781          | 002789             |
| 10       | 003937           | 017568           | 056525           | .031809              | .040333          | 032163             |
| 11       | 002886           | 001118           | 025717           | .038992              | .049158          | 052995             |
| 12       | 001362           | .019386          | 003781           | .036619              | .052582          | 058983             |
| 13       | .000394          | .029664          | .011434          | -028110              | .052841          | 056046             |
| 14       | .002180          | .037607          | .026007          | .016692              | .052856          | 048723             |
| 15       | 001270           | .047263          | .041915          | .007126              | .056868          | 043968             |
| 16       | 007195           | .057877          | .061126          | 005110               | .063360          | 039203             |
| 17       | 011900           | .066413          | .080335          | 015364               | .079234          | 035256             |
| 18       | 010631           | .077470          | .097818          | 024020               | .089788          | 040310             |
| 19       | 010316           | .089826          | .114267          | 024558               | .100097          | 054624             |
| 20       | 007446           | .091447          | .129979          | 026799               | .109101          | 071542             |
| 21       | .000139          | .088390          | .139948          | 031530               | .113216          | 082319             |
| 22       | .006820          | .092605          | -153190          | 036743               | .115121          | 090386             |
| 23       | .012789          | .099398          | .168190          | 032639               | .116744          | 099836             |
| 24       | .021186          | .117079          | .178015          | 025176               | .114429          | 110576             |
| 25       | .030583          | .132991          | .183299          | 029800               | .108107          | 116046             |
| 26       | .042798          | .140019          | .180670          | 033591               | .095049          | 114789             |
| 27       | .053566          | .136748          | .165918          | 032094               | .075107          | 113242             |
| 28       | .054621          | .128567          | .150601          | 035655               | .057125          | 106767             |
| 29       | .052936          | .119479          | .136432          | 046955               | .037152          | 092751             |
| 30       | .057056          | .111759          | .120694          | 063515               | .017251          | 072291             |
| 31       | .054404          | .101448          | .108049          | 073132               | 001166           | 054062             |
| 32       | .044795          | .093034          | .096852          | 070428               | 018726           | 042115             |
| 33       | .030130          | .077511          | .088501          | 058843               | 028264           | 034837             |
| 34       | •022454          | .057786          | .079371          | 045486               | 026550           | 026694             |
| 35       | .014833          | -044114          | .070597          | 032396               | 024302           | 017761             |
| 36       | .006056          | .037042          | .060434          | 022592               | 025884           | 008072             |
| 37       | .006486          | .039008          | .046098          | 012967               | 032205           | 005982             |
| 38       | .006504          | .047977          | .036132          | 009073               | 036477           | 007705             |
| 39       | .009486          | .053452          | .025053          | 013420               | 041815           | 010929             |
| 40       | .011976          | .050012          | .020307          | 017867               | 045473           | 018490             |
| 41       | .007217          | .044996          | .017005          | 016406               | 041055           | 027086             |
| 42       | 004006           | .034855          | .016265          | 007684               | 024818           | 033270             |
| 43       | 013933           | .026013          | .014989          | .004526              | 006708           | 030091             |
| 44       | 023728           | .021737          | .009360          | .012056              | .007529          | 020643             |
| 45       | 030390           | .009648          | 003103           | .013113              | .013847          | 010049             |
| 46       | 031836           | 014116           | 014926           | .005068              | .018492          | .001553            |
| 47       | 041602           | 035814           | 023051           | .002196              | .021230          | .010871            |
| 48       | 050873           | 048780           | 029184           | .004797              | .021252          | .018807            |
| 49       | 054842           | 056608           | 033040           | .008251              | .024505          | .029080            |
| 50       | 060195           | 056833           | 029759           | -019535              | .026741          | .035309            |
| 51       | 059163           | 058675           | 031081           | .031908              | .019653          | .032986            |
| 52       | 059229           | 064111           | 034435           | .033853              | .003226          | .035025            |
| 53<br>54 | 062858<br>063587 | 071211<br>072846 | 039686<br>036898 | .032195<br>.035217   | 016459<br>030019 | .043467<br>.051249 |
|          |                  |                  |                  |                      |                  |                    |
| 55<br>56 | 052477<br>037146 | 068707           | 030824<br>026116 | .035492              | 035718           | .054028            |
| 57       | 024018           | 063327<br>060659 | 021453           | • 032007<br>• 024606 | 034602<br>030963 | .051048            |
| 58       | 013299           | 053612           | 017808           | .014541              | 024796           | .042640<br>.029248 |
| 59       | .001516          | 048455           | 017287           | .011523              | 019247           | .022275            |
| 60       | .017727          | 044368           | 016537           | .004208              | 010466           | .017113            |
|          |                  |                  | ***              |                      |                  |                    |

RUN NO. 85B 40M 11-16-62 1254-1347 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

#### NORMALIZED QUADRATURE COVARIANCE

| M        | U,V                                     | U,W                | U, T                                    | V,W                                     | V,T               | W.T                                     |
|----------|---|--------------------|---|---|-------------------|---|
|          | 0.10300                                 | 0.054.00           | 0.10530                                 | 0.75010                                 | 0.11014           | 0.00535                                 |
|          | 0.10390<br>10E 01                       | 0.85402<br>10E 00  | 0.12539<br>10E 00                       | 0.75019<br>10E 00                       | 0.11014<br>10E 00 | 0.90535<br>10E-01                       |
|          |   | .00                |   |   |                   |   |
| 1        | .014795                                 | 003644             | 055070                                  | 004964                                  | 021453            | .005881                                 |
| 2        | .024957                                 | 016120             | 096433                                  | 020647                                  | 032154            | .014005                                 |
| 3        | .029605                                 | 031522             | 123492                                  | 035157                                  | 036195            | .022671                                 |
| 4        | .027083                                 | 045158             | 136517                                  | 040109                                  | 035006            | .025662                                 |
| 5        | .021998                                 | 054778             | 148349                                  | 038374                                  | 035142            | .027309                                 |
| 6        | .014814                                 | 059638             | 158072                                  | 037605                                  | 031123            | .023424                                 |
| 7        | .007101                                 | 060144             | 160951                                  | 045146                                  | 029699            | .017559                                 |
| 8        | .002060                                 | 059154             | 164695                                  | 056523                                  | 026068            | .008980                                 |
| 9        | 000820                                  | 059929             | 158650                                  | 064972                                  | 017739            | .000424                                 |
| 10       | 009146                                  | 061280             | 149633                                  | 063730                                  | 016606            | 002284                                  |
| 11       | ~.015281                                | 051171             | 138247                                  | 061520                                  | 016266            | 000209                                  |
| 12       | 019550                                  | 039133             | 124573                                  | 057470                                  | 013914            | 003000                                  |
| 13       | 017738                                  | 034458             | 111557                                  | 039534                                  | 007455            | 002670                                  |
| 14       | 011206                                  | 037316             | 095925                                  | 020603                                  | 002090            | 000716                                  |
| 15       | 007673                                  | 038803             | 079981                                  | 009813                                  | 000440            | .001626                                 |
| •        | *************************************** |                    | *************************************** |   |                   | *************************************** |
| 16       | 007060                                  | 035752             | 065714                                  | 013115                                  | 002591            | 000289                                  |
| 17       | 005082                                  | 026782             | 054076                                  | 016250                                  | 007822            | 006217                                  |
| 18       | 011651                                  | 019066             | 037963                                  | 021584                                  | 015192            | 009141                                  |
| 19       | 026383                                  | 015945             | 017737                                  | 027179                                  | 017634            | 001873                                  |
| 20       | 036358                                  | 014052             | 004027                                  | 032226                                  | 017854            | .003190                                 |
| 21       | 040216                                  | 015981             | .003192                                 | 032678                                  | 015114            | .005309                                 |
| 22       | 038059                                  | 017654             | .005854                                 | 039363                                  | 013782            | 001518                                  |
| 23       | 035699                                  | 013297             | .011841                                 | 039191                                  | 011521            | 006027                                  |
| 24       | 035520                                  | 004342             | .018372                                 | 026057                                  | 007891            | 004927                                  |
| 25       | 035478                                  | .011660            | .025000                                 | 011898                                  | 005971            | 001108                                  |
|          |   |                    |   |   |                   |   |
| 26       | 033989                                  | .026748            | .037973                                 | .002414                                 | 002095            | .007539                                 |
| 27       | 029296                                  | .038476            | .045593                                 | .016108                                 | .006476           | -014640                                 |
| 28       | 028598                                  | .037763            | .051808                                 | .020714                                 | .012588           | -021814                                 |
| 29       | 025644                                  | .043195            | •057142                                 | .023583                                 | .019797           | .027006                                 |
| 30       | 022160                                  | .043686            | .059744                                 | .029536                                 | .026713           | .028408                                 |
| 31       | 014693                                  | .036091            | .056957                                 | .042231                                 | .033244           | .034723                                 |
| 32       | 004511                                  | .025287            | .050318                                 | .048609                                 | .033348           | .039024                                 |
| 33       | 001643                                  | .017119            | .042497                                 | .049175                                 | .024449           | .042008                                 |
| 34       | .001697                                 | .012502            | .035076                                 | .050782                                 | .018502           | .040128                                 |
| 35       | .004465                                 | .014141            | •029933                                 | .050818                                 | .011199           | .027793                                 |
| 2.       | 01/275                                  | 012504             | 0.27021                                 | 047300                                  | 004100            | 01//21                                  |
| 36<br>37 | .016775<br>.034209                      | .013594            | .027031                                 | .047329                                 | .004109           | .016431                                 |
| 38       | .043663                                 | .008006            | •021241<br>020224                       | .045408<br>.045687                      | 002441            | .006944                                 |
| 39       | .045941                                 | .006533<br>.007517 | .020236<br>.018986                      | • 047046                                | 006975<br>008117  | .005068<br>.001512                      |
| 40       | .047852                                 | .006240            | .011232                                 | .036726                                 | 008597            | 005054                                  |
|          |   |                    |   | *************************************** | ••••              |   |
| 41       | .044922                                 | .002368            | .000218                                 | -019146                                 | 006925            | 010439                                  |
| 42       | .034738                                 | .001100            | 010995                                  | .008659                                 | 001975            | 011970                                  |
| 43       | .028833                                 | .009101            | 014227                                  | .005501                                 | 001143            | 008787                                  |
| 44       | .032166                                 | .014139            | 014090                                  | .005605                                 | 000687            | 003136                                  |
| 45       | .034106                                 | .016824            | 013007                                  | .015512                                 | 000586            | .004908                                 |
| 46       | .035102                                 | .019310            | 016898                                  | .028768                                 | 001060            | .001616                                 |
| 47       | .034009                                 | .013942            | 022675                                  | .033098                                 | 000119            | 002723                                  |
| 48       | .032758                                 | .007312            | 023823                                  | .024638                                 | .002012           | 002822                                  |
| 49       | .034493                                 | 001861             | 026547                                  | .015716                                 | .006603           | 002931                                  |
| 50       | .030088                                 | 007170             | 023495                                  | .012097                                 | .017168           | .001297                                 |
| 51       | .021672                                 | 005370             | 018387                                  | .006742                                 | .026089           | 002384                                  |
| 52       | .014472                                 | 007111             | 017445                                  | .003996                                 | .032732           | .002384<br>002878                       |
| 53       | .008014                                 | 013053             | 009652                                  | 004963                                  | .042524           | 014388                                  |
| 54       | .005080                                 | 019337             | •000918                                 | 004783                                  | .045566           | 023980                                  |
| 55       | .000098                                 | 020526             | .009442                                 | 003405                                  | .040321           | 024809                                  |
|          |   |                    |   |   |                   |   |
| 56       | 004218                                  | 016737             | .016104                                 | .000602                                 | .038189           | 022973                                  |
| 57       | .00r '6                                 | 013387             | .017747                                 | 003027                                  | .037213           | 019698                                  |
| 58       | .004.//                                 | 007353             | -014067                                 | 008284                                  | .033972           | 015686                                  |
| 59       | .002504                                 | 003779             | .010257                                 | 013186                                  | .030451           | 013229                                  |
| 60       | 000044                                  | .002103            | .004731                                 | 016000                                  | .023014           | 009506                                  |
|          |   |                    |   |   |                   |   |

RUN NC. 858 40M 11-16-62 1254-1347 EST 61 PCINT RUNNING MEAN, NO BLOCK AVERAGING

| M        |   | U                    | ٧                  | W.                 | Ţ                    |
|----------|---|----------------------|--------------------|--------------------|----------------------|
|          |   | 0.11828              | 0.91267            |                    | •                    |
|          |   | 10E 01               | 10E 00             | 0.61663<br>10E 00  | 0.13292<br>10E-01    |
| 0        |   | 1.000000             | 1.000000           | 1 00000            |                      |
| 1        |   | .855621              | .809782            | 1.000000           | 1.000000             |
| 2        |   | -692091              |                    | <b>.</b> 772983    | .871715              |
| 3        |   | .562829              | •579991            | •510989            | .696484              |
| 4        |   | •463462              | •408225            | • 322299           | -548916              |
|          |   | **********           | •278523            | • 192559           | •427062              |
| 5<br>6   |   | -383338              | -181866            | .088977            | 227522               |
| 7        |   | -312111              | -105642            | .005905            | •327523              |
| 8        |   | .245995              | .061131            | 060864             | •242281              |
| 9        |   | -177374              | .037962            | 090330             | .169174              |
| 7.       |   | .100953              | .017136            | 102582             | •099834<br>•044720   |
| 10       |   | .038852              | 009264             | 106794             |                      |
| 11       |   | 017310               | 030720             |                    | 001803               |
| 12       |   | 058783               | 052107             | 103701             | 037472               |
| 13       |   | 098124               | 067772             | 095570             | 059748               |
| 14       |   | 130918               | 088910             | 097338             | 073568               |
| 15       |   |                      |                    | 097530             | 081881               |
|          |   | 157521               | 115497             | 109262             |                      |
| 16       |   | 179564               | 133670             |                    | 089782               |
| 17       |   | 194530               | 158643             | 119043             | 108466               |
| 18       |   | 216370               | 173678             | 113529             | 132830               |
| 19       |   | 337500               | 183142             | 117708             | 161403               |
| 20       |   |                      | 103142             | 134767             | 197195               |
| 20       |   | 251780               | 188367             | 144237             |                      |
| 21       |   | 263197               | 198685             |                    | 234901               |
| 22       |   | 269009               | 196137             | 137672             | 263806               |
| 23       |   | 279098               | 198801             | 126271             | 285855               |
| 24       |   | 281255               | 202672             | 116858             | 304532               |
| 25       |   |                      | -1202012           | 126941             | 318195               |
| 26       |   | -,280143<br>-,276339 | 204272             | 143643             | 328786               |
| 27       |   | 263857               | 203567             | 144168             | 325957               |
| 28       |   |                      | 203500             | 142220             | 304683               |
| 29       |   | 253663               | 199439             | 131090             |                      |
| .,       |   | 232699               | 174116             | 117780             | -•275251<br>-•231981 |
| 30       |   | 209770               | 130382             |                    | -                    |
| 31       | - | 180616               |                    | 088291             | 182916               |
| 32       |   | -156450              | 084160             | 049682             | 136057               |
| 33       |   | -131530              | 057151             | 022138             | 089766               |
| 34       |   | .097758              | 044409             | 024588             | 053057               |
|          |   |                      | 042606             | <b></b> 033507     | 027750               |
| 35       | - | •075595              | 038937             |                    |                      |
| 36       | - | .060635              | 030265             | 023187             | 014669               |
| 37       | - | -050028              | 023072             | •003072            | 001687               |
| 38       |   | .036569              | 021211             | -014089            | .012071              |
| 39       |   | .027283              |                    | • 002993           | .026246              |
|          |   |                      | 015677             | -• 003239          | .040705              |
| 40       |   | .016024              | 004687             | 004907             |                      |
| 41       | - | •000727              | .001119            | 01014              | .047634              |
| 42       |   | .003234              | 003126             | 010145             | •042220              |
| 43       |   | .005958              | 010652             | 016899             | • 027447             |
| 44       |   | .013696              | 016089             | 012836             | .013363              |
| 45       |   |                      | .010007            | • 000765           | •006241              |
|          |   | 019564               | 017552             | • 010209           |                      |
| 46       |   | .023344              | 015509             | .015674            | .002730              |
| 47       |   | 022730               | 023463             |                    | .003474              |
| 48       |   | 027748               | 028076             | • 009482           | .013813              |
| 49       |   | 031409               | 018285             | •010533<br>•025560 | •027562              |
| 50       |   | 0.27080              |                    | - 067300           | •035929              |
| 51       |   | 027089<br>032728     | .001930            | .050174            | •039285              |
| 52       |   | 032173               | .022874            | - 068889           | .044312              |
| 53       |   | 032244               | .033728            | • 070231           | •054151              |
| 54       |   | 027384               | •048599<br>•063792 | • 063429           | .070479              |
| 66       |   |                      | 1003176            | •066373            | .085438              |
| 55<br>56 |   | 024308               | .075028            | • 083599           | .001255              |
| 57       |   | 029209               | •074945            | . 094668           | •091255              |
| 58       |   | 036059               | .076369            | .077939            | • 090952             |
|          |   | 039854               | -069782            | • 045144           | .079747              |
| 59       | • | 039286               | .053853            | .011443            | .058104              |
| 60       |   | 033530               |                    |                    | .031811              |
|          | • | J J J J J U          | .036491            | 014662             | .005138              |
|          |   |                      |                    |                    |                      |

RUN NO. 85B 40M 11-16-62 1254-1347 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

|           | TOTAL NO                 | ANT NO BLUCK         | AVERAGING |                          |   |          |
|-----------|--------------------------|----------------------|-----------|--------------------------|---|----------|
| COSPECTA  | UM                       |                      |           |                          |   |          |
| ĸ         | <b>u, v</b>              |                      |           |                          |   |          |
|           | 0,4                      | U,W                  | U,T       | V.H                      | V.T                                     | W,T      |
|           | 10E-01                   | 10E-01               | 105.01    |                          |   |          |
|           | 101 01                   | 105-01               | 10E-01    | 10E-01                   | 10E-02                                  | 10E-02   |
| 0<br>1    | .010043                  | 049558               | 018313    | .006940                  | 030242                                  | • 050063 |
| 2         | 057528                   | 596391               | 136463    | -152389                  | 371873                                  | •506201  |
| 3         | 127560                   | 706613               | 143134    | .174167                  | 585042                                  | •609592  |
| 4         | 035906<br>-071226        | 581923               | 117903    | .082691                  | 753674                                  | .573434  |
| •         | .011220                  | 313430               | 055022    | 021007                   | 520011                                  | -360696  |
| 5         | .005370                  | 218838               | 026010    | - 017222                 | 244224                                  |          |
| 6         | 045288                   | 203227               | 023062    | 017232<br>007123         | 246054                                  | .252749  |
| 7-8       | .006239                  | 150781               | 018998    | 007123                   | 257636                                  | -271195  |
| 9-11      | .026522                  | 074985               | 004199    | .029117                  | 281644                                  | -210331  |
| 12-15     | .008300                  | 022002               | 003729    | .001200                  | 122662<br>064526                        | .039294  |
| 16-20     | 002021                   |                      |           |                          | *************************************** | •043501  |
| 21-27     | • 003031                 | 009384               | 002837    | .002079                  | 044863                                  | .023148  |
| 28-36     | • 002429<br>• 000930     | 013381               | 000327    | 006537                   | 033319                                  | .012188  |
| 37-47     | .001275                  | -001261              | 000397    | 000658                   | 019185                                  | .005468  |
| 48-60     | .001784                  | • 000540<br>• 000630 | •000001   | 003187                   | 011014                                  | .004797  |
|           | *******                  | • 000630             | -000002   | 000941                   | 006605                                  | .002093  |
|           |                          |                      |           |                          |   |          |
|           |                          |                      |           |                          |   |          |
| QUADRATUR | E SPECTRUM               |                      |           |                          |   |          |
| K         |                          |                      |           |                          |   |          |
| •         | U, V                     | U, W                 | U,T       | V.W                      | V,T                                     | W.T      |
|           |                          |                      |           |                          |   | ~,,      |
|           | 106-01                   | 10E-01               | 105 00    |                          |   |          |
|           |                          | 101-01               | 10E-02    | 10E-01                   | 10E-02                                  | 10E-03   |
| 1         | 106855                   | 086786               | 368075    | 071283                   |   |          |
| 2         | 093680                   | 159204               | 556666    | 162234                   | 051285                                  | •736373  |
| 3         | .049749                  | 191538               | 727684    | 148836                   | 090693                                  | -103280  |
| 4         | <ul><li>107881</li></ul> | 109646               | 518509    | 041352                   | 104158<br>057330                        | 131258   |
| 5         | • 027153                 | 031367               | 262602    | 026903                   | 024533                                  | -447658  |
| 6         | 015050                   |                      |           |                          | ********                                | -706810  |
| 7-8       | •015850                  | 025142               | 169842    | 062221                   | 077368                                  | -255734  |
| 9-11      | • 048903                 | 035612               | 088428    | 010699                   | 066209                                  | -289712  |
| 12-15     | .040610<br>.000103       | -011871              | 041391    | <ul><li>024052</li></ul> | 015191                                  | .170703  |
| 16-20     | .009152                  | .009557              | 022803    | 019936                   | 017328                                  | .003428  |
|           | *******                  | .002515              | 017633    | •003990                  | 002842                                  | 026067   |
| 21-27     | 001038                   | .002967              | 006016    | 005714                   |   |          |
| 28-36     | . 000894                 | .002756              | 001300    | .005714                  | 006257                                  | 004345   |
| 37-47     | .000098                  | .000547              | .000356   | •002028<br>•000788       | 001749                                  | 021465   |
| 48-60     | .000382                  | .000376              | 000845    | .000280                  | -000710                                 | 013794   |
|           |                          |                      |           | 000000                   | 001547                                  | -002249  |
| OWER SPEC | TOLLM                    |                      |           |                          |   |          |
| ONEN SPEC | INUH                     |                      |           |                          |   |          |
| K         | U                        |                      | V         |                          |   |          |
|           |                          |                      | •         | , W                      |   | T        |
|           |                          |                      |           |                          |   |          |
|           | 10E                      | 00                   | 10E 00    | 10E-                     | 01                                      | 10E-02   |
| 0         |                          |                      |           |                          | ••                                      | 105-02   |
| ĭ         | -021                     |                      | .009761   | .027                     | 304                                     | .024665  |
| 2         | •194°                    |                      | -100980   | • 410                    | 442                                     | -198787  |
| 3         | •212                     |                      | -124850   | • 598                    | 434                                     | .238533  |
| 4         | .1210                    |                      | -125451   | .681                     |   | -232091  |
|           | ****                     |                      | .081283   | . 538                    | 234                                     | -12417   |
| 5         | -0692                    | 253                  | .050819   | /300                     | 703                                     |          |
| 6         | .0580                    |                      | •049821   | • 4327<br>• 4317         |   | • 064. 5 |
| 7-8       | .0398                    | 396                  | .046496   | • 3853                   |   | • 079834 |
| 9-11      | -0216                    |                      | .033867   | • 2552                   |   | .074169  |
| 12-15     | .0172                    | 79                   | -019676   | .1322                    |   | .028398  |
| 16-20     | 0100                     | 121                  |           |                          |   | .019757  |
| 21-27     | .0122                    | _                    | .011357   | .0907                    | 77                                      | .012481  |
| 28-36     | -0066<br>-0047           |                      | .007427   | .0674                    |   | .007351  |
| 37-47     | .0029                    | -                    | •004780   | .0371                    |   | .004164  |
| 8-60      | .0023                    |                      | .003084   | - 0247                   |   | .002613  |
|           |                          |                      | .001956   | .0172                    | 06                                      | .001744  |
|           |                          |                      |           |                          |   |          |

RUN NO. 85B 40M 11-16-62 1254-1347 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

| М        | U, V     | U,W               | U, T               | V,W              | V,T                                     | W,T                |
|----------|----------|-------------------|--------------------|------------------|---|--------------------|
|          | 0.12172  | 0.74450           | 1                  |                  | •                                       |                    |
|          | 10E 01   | 0.76459<br>10E 00 | 0.20346            | 0.55188          | 0.14686                                 | 0.92252            |
|          |          | 105 00            | 10E 00             | 10E 00           | 10E 00                                  | 10E-01             |
| 0        | 042212   | 541198            | 736032             | 003351           |   |                    |
| 1        | 022879   | 324647            | 596592             | • 093301         | 273079                                  | •448920            |
| 2        | 018930   | 154966            | 406035             | - 031880         | 146594                                  | -234561            |
| 3        | .021537  | 035056            | 264105             | 021889<br>077963 | 100227                                  | •116596            |
| 4        | 007086   | .019863           | 142417             | 026901           | 123319                                  | .037941            |
| 1.00     |          |                   | ******             | 020401           | 086915                                  | 018620             |
| 5        | 039960   | .019387           | 056090             | 009021           | 063734                                  |                    |
| 6        | 007772   | .039926           | .036904            | 020647           | 059231                                  | 019125             |
| 7        | 018079   | .077259           | .127996            | -054189          | .001682                                 | 031327             |
| 8        | 048331   | .081876           | .185230            | .036072          | .015379                                 | 059577             |
| 9        | 017849   | .106469           | .234876            | 001999           | .037533                                 | 030798<br>045818   |
| 10       | 010544   |                   |                    |                  | *************************************** |                    |
| 10<br>11 | -012564  | .085045           | -210358            | 033300           | .030569                                 | 032002             |
| 12       | • 070722 | .062564           | .181898            | 079962           | 038640                                  | 026784             |
| 13       | -058728  | -116275           | ·189920            | 046210           | 063964                                  | 061292             |
| 14       | .063712  | -082002           | •149526            | 081635           | 036486                                  | 030873             |
| • •      | • 046248 | .058762           | ·128287            | 058954           | 006004                                  | 012372             |
| 15       | .046126  | 022200            |                    |                  |   |                    |
| 16       | .033619  | -022999           | .081059            | -021204          | .012970                                 | 067206             |
| 17       | .037718  | 019897<br>.013802 | .033978            | • 015077         | -047109                                 | .018851            |
| 18       | .027218  | .035463           | -029808            | 029479           | .067447                                 | .006549            |
| 19       | 014565   | .089497           | .055629            | 033531           | -049182                                 | 037946             |
|          |          | .007477           | .136577            | .020381          | .087818                                 | 105197             |
| 20       | 084207   | •117251           | 204470             |                  |   |                    |
| 21       | 122402   | .075583           | -204478            | .015529          | •163892                                 | 134088             |
| 22       | 131772   | .046017           | -187320<br>-181232 | • 030420         | .213964                                 | 110251             |
| 23       | 147224   | .076602           | .180859            | -091551          | .256512                                 | 149219             |
| 24       | 103931   | •060201           | •112799            | .093396          | . 247334                                | 138117             |
|          |          |                   | *****              | .033209          | .200549                                 | 064999             |
| 25       | 065786   | .040182           | .029448            | .032247          | 170/07                                  |                    |
| 26       | 070578   | .003734           | 040183             | -007628          | -170427                                 | 028184             |
| 27       | 038831   | 073601            | 089100             | .042211          | •145821<br>•123828                      | • 056506           |
| 28       | 045733   | 066557            | 124044             | .078321          | .096191                                 | -050609            |
| 29       | 024157   | 090331            | 167746             | 009736           | .056845                                 | .051491<br>.092803 |
| 30       |          |                   |                    |                  | *******                                 | • 072003           |
| 30       | 022350   | 139836            | 216757             | .049142          | .025277                                 | -117608            |
|          |          |                   |                    |                  |   |                    |
| COSPECTA | LAM.     |                   |                    |                  |   |                    |
| COSPECIA | טח       |                   |                    |                  |   |                    |
| K        | U,V      | U,W               |                    |                  |   |                    |
|          | 0,,,     | U , W             | U, T               | V,W              | V.T                                     | W.T                |
|          |          |                   |                    |                  |   |                    |
|          | 10E-01   | 10E-01            | 10E-01             | 10E-01           | lor or                                  |                    |
|          |          |                   | IOL-OF             | 105-01           | 10E-01                                  | 10E-02             |
| 0        | 019928   | 027407            | 032311             | 020434           | - 020052                                |                    |
| 1        | 028718   | 447916            | 303853             | 036272           | 020953                                  | .047703            |
| 2        | 192551   | 510745            | 306366             | .056790          | 130316<br>060144                        | .518646            |
| 3        | 136424   | 522133            | 285974             | .058045          | 022407                                  | -447576            |
| 4        | .186407  | 475521            | 227272             | 025991           | 047129                                  | . 380653           |
| •        |          |                   |                    |                  |   | .443559            |
| 5<br>6   | .083419  | 314696            | 110708             | 015439           | 026153                                  | .327974            |
| 7        | 051209   | 225128            | 045040             | .041549          | 001119                                  | . 240059           |
| 8        | 065316   | 275199            | 057632             | .107216          | .005098                                 | .295184            |
| 9-1.     | 136505   | 244818            | 039812             | . 142957         | .007294                                 | 204902             |
| 4-11     | 012483   | 176949            | 037147             | .051559          | 015956                                  | .152293            |
| 12-14    | 064253   | . 102254          |                    |                  |   |                    |
| 15-21    | .035916  | 102354            | 017778             | .028782          | 005662                                  | .114181            |
| 22-30    | 034602   | 051257            | 009101             | .001501          | 013217                                  | -067150            |
| 50       | -034002  | 069621            | 006497             | 003427           | 006938                                  | .096323            |
|          |          |                   |                    |                  |   |                    |

RUN NC. 85B 40M 11-16-62 1254-1347 EST 301 PCINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

#### NORMALIZED QUADRATURE COVARIANCE

| м          | U+V      | U.W     | U,T     | V, W    | V,T     | W.T     |
|------------|----------|---------|---------|---------|---------|---------|
|            | 0.12172  | 0.76459 | 0.20346 | 0.55188 | 0.14686 | 0.92252 |
|            | 10E 01   | 10E 00  | 10E 00  | 10E 00  | 10E 00  | 10E-01  |
| 1          | .014874  | 015006  | 111486  | 012668  | .002639 | .069599 |
| Ž          | 021267   | .002981 | 094486  | 055521  | .009894 | .076533 |
| 3          | 002982   | .070594 | 113420  | .001412 | .067102 | .139891 |
| 4          | .044605  | .100185 | 139274  | .035930 | .043780 | .174395 |
| 5          | .030918  | .134912 | 119246  | 020350  | .045831 | .143371 |
| 6          | .013903  | .106480 | 115231  | 067280  | .017168 | .112579 |
| 7          | 026815   | .111584 | 089504  | 107131  | 052471  | .109217 |
| 8          | 059826   | .087568 | 066063  | 124166  | 082472  | .084346 |
| 9          | 042811   | .009208 | 055869  | 060967  | 071810  | .050365 |
| 10         | 030980   | .014800 | 043573  | 086655  | 066281  | .066079 |
| 11         | 030263   | .022585 | 024185  | 114361  | 038141  | .047347 |
| 12         | 010186   | .025768 | .008085 | 106631  | 063546  | 001478  |
| 13         | .003386  | 020684  | .010091 | 074671  | 062652  | 055574  |
| 14         | 027915   | 104015  | .020350 | 056686  | 050394  | 108800  |
| 15         | 001898   | 086855  | .021535 | 011070  | 022404  | 101207  |
| 16         | .039837  | 065531  | 015473  | .032438 | .015076 | 058808  |
| 17         | .035626  | 081640  | 018122  | .048876 | .037559 | 078434  |
| 18         | .040648  | 082944  | 022451  | .047899 | .063242 | 067142  |
| 19         | .083535  | 016370  | 035459  | .087662 | .077858 | 039758  |
| 20         | .058908  | 009528  | 001345  | .089193 | .062493 | 050182  |
| 21         | .078920  | 010885  | .005750 | .054830 | .048319 | 052297  |
| 22         | .075740  | 026417  | 002426  | .104062 | .041699 | 031342  |
| 23         | .044530  | 022354  | 004401  | .139842 | .033573 | .003501 |
| 24         | .029467  | 044777  | 003363  | .059831 | .004956 | 004061  |
| 25         | 048076   | 016447  | .021395 | .004777 | 046555  | 030003  |
| 26         | 088779   | 033493  | .041693 | 057202  | 063577  | 052562  |
| 27         | 081864   | 016977  | .072854 | 021605  | 050048  | 041719  |
| 28         | 066457   | .035078 | .077690 | .093153 | 016913  | .025319 |
| 29         | 051239   | .061340 | .069038 | .041741 | .006115 | .023829 |
| 30         | 047605   | .015009 | .060054 | 026283  | 005881  | .001959 |
| QUADRATURE | SPECTRUM |         |         |         |         |         |
| К          | u,v      | U•W     | U.T     | V.W     | V,T     | W.T     |
|            | 106-01   | 10E-01  | 10E-02  | 10E-01  | 10E-02  | 10E-02  |
| 1          | 000922   | .105603 | 901352  | 223529  | 242246  | .224318 |
| 2          | 133080   | .284593 | 834371  | 222886  | 212804  | .477487 |
| 3          | .002786  | .328930 | 855775  | 040303  | .127216 | .545273 |
| 4          | .188099  | .128778 | 675774  | .113724 | .428794 | .270273 |
| 5          | .085931  | 030022  | 313291  | .055204 | .239106 | .069211 |
| 6          | .040990  | 031060  | 134143  | 。009435 | .091431 | .073599 |
| 7          | 009756   | 037514  | 166949  | 000434  | .071312 | .102733 |
| 8          | 095704   | 110000  | 166701  | 000418  | 039395  | .049246 |
| 9-11       | 084736   | 054306  | 054531  | 063814  | 128442  | 047930  |
| 12-14      | .025520  | 038363  | 107324  | 023527  | .011196 | 009318  |
| 15-21      | .055301  | .000816 | 113276  | .023407 | 033305  | .038262 |
| 22-3C      | .001816  | .012906 | 034840  | .011532 | .059566 | .013126 |
|            |          |         |         |         |         |         |

RUN NO. 858 40M 11-16-62 1254-1347 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

| M             | U        | ٧        | W        | τ        |
|---------------|----------|----------|----------|----------|
|               | 0.16863  | 0.87857  | 0.34667  | 0.24549  |
|               | 10E 01   | 10E 00   | 10E 00   | 10E-01   |
| 0             | 1.000000 | 1.000000 | 1.000000 | 1.000000 |
| ĭ             | .659347  | .551998  | .217115  | .747135  |
| ž             | .379806  | .329209  | .054661  | .531762  |
| 3             | .204331  | .246671  | 008813   | .381385  |
| 4             | .086849  | .149257  | 036426   | .222955  |
| 5             | .004398  | .143029  | 026256   | .117345  |
| 6             | 066226   | .131742  | 047604   | .005381  |
| 7             | 159389   | .021201  | 071119   | 112037   |
| 8             | 176673   | .035237  | . 032036 | 192490   |
| 9             | 220657   | 041985   | 079792   | 254365   |
| 10            | 238025   | 099675   | 094233   | 263552   |
| 11            | 222408   | 093597   | 131665   | 233886   |
| 12            | 220794   | 040800   | 114532   | 225740   |
| 13            | 183228   | 075008   | 175186   | 196939   |
| 14            | 131376   | 100083   | 061603   | 181103   |
| 15            | 045775   | 080388   | 119935   | 160534   |
| 16            | .016452  | 158800   | .076317  | 117414   |
| 17            | .023139  | 257089   | 063790   | 114405   |
| 18            | 031959   | 2160     | 087288   | 114870   |
| 19            | 106366   | 255200   | 102053   | 207539   |
| 20            | 152637   | 331108   | 082277   | 280497   |
| 21            | 089012   | 357638   | 034341   | 293082   |
| 22            | 083267   | 320130   | 004321   | 314521   |
| 23            | 137547   | 265538   | ~.045655 | 258966   |
| 24            | 134799   | 157535   | .040162  | 180579   |
| 25            | 049508   | 095700   | 008410   | 068325   |
| 26            | 005142   | 043831   | .031994  | .027301  |
| 27            | .027431  | 040761   | .085504  | .084740  |
| 28            | .080476  | 010104   | .112963  | .153194  |
| 29            | .148153  | 022516   | .115928  | .206572  |
| 30            | .206672  | 005737   | .176783  | .264439  |
| POWER SPECTRU | м        |          |          |          |
| K             | U        | V        | W        | T        |
|               | 10E 00   | 10E 00   | 10E-01   | 10E-02   |
| 0             | .027220  | .033013  | .005257  | .063017  |
| i             | .237163  | .202872  | .197180  | .55091C  |
| Ž             | .256585  | .135135  | .257626  | .509335  |
| 3             | .269789  | .071114  | .238963  | .419775  |
| 4             | .213473  | .063643  | .178496  | .317727  |
| 5             | .111430  | .050340  | .142993  | -157174  |
| 6             | .070640  | .026668  | .149408  | .065844  |
| 7             | .088908  | .032498  | .204270  | .080340  |
| 8             | .077122  | .036767  | .201484  | .055780  |
| 9-11          | .051674  | .031550  | .130317  | .058773  |
| 12-14         | .037178  | .021185  | .130354  | .031735  |
| 15-21         | .023267  | .018882  | .119698  | .025736  |
| 22-30         | .020043  | .016761  | .154200  | .021816  |

RUN NC. 85B 16M 11-16-62 1254-1347 EST RUN NC. 85B 40M 11-16-62 1254-1347 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

## COHERENCE WITH QUADRATURE

| К                | U              | v       | W         |          |
|------------------|----------------|---------|-----------|----------|
|                  | 10E 00         | 10E 00  | 10E 00    | 10E 00   |
| 0<br>1<br>2<br>3 | -741285        | •497545 | V         |          |
| 1                | •599598        |         | -655450   | - 755881 |
| 2                | •537626        | •720486 | •711040   | -641906  |
| 2                |                | •659049 | .672918   | -561104  |
| ,                | •509081        | •589035 | .603706   | .514513  |
| •                | •447181        | •549050 | •530760   |          |
| _                |                |         | •335100   | •478635  |
| 5                | •285013        | .521041 | • 481965  |          |
| 6                | -158438        | .459279 |           | •412862  |
| 7-8              | .111806        |         | • 460268  | • 357503 |
| 9-11             | .059155        | .411345 | · 533/ 09 | .391221  |
| 12-15            | =              | .351000 | • 422352  | .257224  |
|                  | <b>.137265</b> | -271794 | • 185U82  | .305340  |
| 16-20            |                |         |           | . 303340 |
|                  | -144785        | •179549 | .210420   | -157500  |
| 21-27            | .144922        | .109774 | .142942   |          |
| 28-36            | -111681        | .073773 |           | -144660  |
| 37-47            | .094435        | 111091  | .136381   | .125289  |
| 48-60            | .085402        |         | .142864   | •090338  |
|                  | 1103402        | .095340 | -110570   | .091158  |

# 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

### COHERENCE WITH QUADRATURE

| K                        | U   | v   | W   | T   |
|--------------------------|---|---|---|---|
|                          | 10E 00  | 10E 00  | 10E 00  | 10E 00  |
| 0<br>1<br>2<br>3<br>4    | .943625<br>.946405<br>.947321<br>.954350<br>.941076 | .948685<br>.940564<br>.926278<br>.889956<br>.799712 | .589541<br>.781251<br>.755208<br>.771056<br>.846724 | .977944<br>.976597<br>.957133<br>.917556            |
| 5<br>6<br>7<br>8<br>9-11 | .869770<br>.795129<br>.752448<br>.667113<br>.647451 | .744894<br>.719519<br>.794136<br>.712310            | .781142<br>.623352<br>.720902<br>.803700<br>.751160 | .849878<br>.715391<br>.609697<br>.689164<br>.593843 |
| 12-14<br>15-21<br>22-30  | .441571<br>.474554<br>.375214                       | •551283<br>•537630<br>•366497                       | •619070<br>•477847<br>•482051                       | •416364<br>•453664<br>•247030                       |

RUN NO. 85C 16M 11-16-62 1358-1503 EST

## GROSS STATISTICS

| CLEAR           | WIND SPEE                    |                              |                              | CTION 303 DEG                |
|-----------------|------------------------------|------------------------------|------------------------------|------------------------------|
| TRANSITIONAL    |                              | 10.8 DEG                     | SOLAR RAD                    |                              |
| LAND            | SIGMA E                      | 5.3 DEG                      | NET RADIA                    | TION 0.12                    |
|                 |                              |                              |                              |                              |
|                 | WITH NO                      | VITH 301 POINT               | WITH 61 POINT                | 301 PT RUN MEAN              |
|                 | RUNNING MEAN                 | RUNNING MEAN                 | RUNNING MEAN                 | 10 PT BLOCK AVE              |
| VARIANCES       |                              |                              |                              |                              |
|                 |                              |                              |                              |                              |
| U               | 0.22526E 01                  | 0.16466E 01                  | 0.10583E 01                  | 0.11854E 01                  |
| V               | 0.20863E 01                  | 0.15881E 01                  | 0.11279E 01<br>0.39862E-00   | 0.98480E 00<br>0.16500E-00   |
| W               | 0.44394E-00                  | 0.43939E-00<br>0.11459E-01   | 0.70544E-02                  | 0.16500E-00<br>0.79233E-02   |
| T               | 0.19011E-01                  | 0.114576-01                  | 0.103446-02                  | 0.172336-02                  |
| E               | 0.23914E 01                  | 0.18372E 01                  | 0.12924E 01                  |                              |
|                 | -                            |                              |                              |                              |
| GUSTINESS RATIO | -<br>-                       |                              |                              |                              |
| U               | 0.19932                      | 0.17041                      | 0.13662                      | 0.14459                      |
| Ÿ               | 0.19182                      | 0.16736                      | 0.14104                      | 0.13179                      |
| W               | 0.08848                      | 0.08803                      | 0.08385                      | 0.05394                      |
| COVARIANCES     |                              |                              |                              |                              |
|                 |                              |                              |                              |                              |
| U,V             | -0.25344E-00                 | -0.49858E-01                 | -0.67982E-02                 | -0.10875E-01<br>-0.22230E-00 |
| U,W             | -0.37366E-00<br>-0.84661E-01 | -0.35168E-00<br>-0.44931E-01 | -0.24703E-00<br>-0.16874E-01 | -0.40725E-01                 |
| U,T<br>V,W      | 0.39984E-01                  | 0.32177E-01                  | 0.10733E-01                  | 0.24194E-01                  |
| V, T            | -0.10585E-00                 | -0.93669E-01                 | -0.64515E-01                 | -0.61624E-01                 |
| W.T             | 0.23172E-02                  | -0.11541E-02                 | -0.25263E-02                 | 0.88244E-03                  |
| WE              | 0.40015E-01                  | 0.61573E-01                  | 0.83849E-02                  |                              |
| NORMALIZED COVA | AD TANIF E C                 |                              |                              |                              |
| HUNNACTED COV   |                              |                              |                              |                              |
| U.V             | -0.11691                     | -0.03083                     | -0.00622                     | -0.01006                     |
| U.W             | -0.37366                     | -0.41346                     | -0.38034                     | -0.50766                     |
| UT              | -0.40911                     | -0.32709                     | -0.19529                     | -0.42023                     |
| V, W            | 0.04155                      | 0.03852                      | 0.01601                      | 0.06002                      |
| V , T           | -0.53149                     | -0.69434                     | -0.72327                     | -0.69763                     |
| W.T             | 0.02522                      | -0.01627                     | -0.04764                     | 0.02441                      |

RUN NO. 85C 16M 11-16-62 1358-1503 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

|    | LIELD GOOFLOTHON  | OOTAMIOL          |                    |                    |                    |                   |
|----|-------------------|-------------------|--------------------|--------------------|--------------------|-------------------|
| M  | U,V               | U, W              | U.T                | V,W                | V,T                | WeT               |
|    | 0.10924<br>10E 01 | 0.64952<br>10E 00 | 0.86363<br>10E-01  | 0.67048<br>10E 00  | 0.89171<br>10E-01  | 0.53020<br>10E-01 |
| •  | 00/010            | 200442            | 105004             | 015001             | 703116             | 047050            |
| 0  | 006212            | 380442            | 195006             | .015896            | 723115             | 047959            |
| 1  | 000507            | 328160            | 187717             | .013482            | 597791             | 018770            |
| 2  | .013724           | 249642            | 173576             | .005335            | 438447             | 000075            |
| 3  | .024206           | 193354            | 156641             | 001866             | 326752             | .011584           |
| 4  | .029228           | 145023            | 139431             | 004350             | 245116             | .014332           |
| 5  | .027998           | 111520            | 119369             | .000015            | 182254             | .007402           |
| 6  | .028365           | 085096            | 101847             | .008267            | 134985             | 006669            |
| 7  | .029570           | 054288            | 086310             | .008872            | 091866             | 009116            |
| 8  | .026440           | 033739            | 072228             | .009037            | 051938             | 010493            |
| 9  | • 026002          | 011737            | 056334             | .005428            | 025252             | 006850            |
| 10 | .027014           | .014881           | 040836             | 002094             | 009390             | 002662            |
| 11 | .024973           | .031456           | 025423             | 007506             | .007782            | .002338           |
| 12 | .018461           | . 035346          | 011135             | 010189             | · 04J023           | .007365           |
| 13 | .008658           | .038753           | .003561            | 012988             | .065009            | .008548           |
| 14 | 001699            | .048727           | .017916            | 009961             | .080233            | -009920           |
| 15 | 010195            | .054829           | .028887            | 003300             | .094705            | .010160           |
| 16 | 020202            | .049878           | .042724            | .001770            | .110112            | .013188           |
| 17 | 026537            | .053638           | .052601            | 002096             | .119398            | .016157           |
| 18 | 026459            | .069147           | .055612            | 001617             | .126010            | .015348           |
| 19 | 022772            | -082327           | .057556            | 002561             | .135642            | .017104           |
| 20 | 023566            | 035790            | .065712            | 007919             | .143134            | .018500           |
| 21 | ~. 022891         | .093908           | .073549            | 015527             | .156788            | .022108           |
| 22 | 021627            | .098893           | .080009            | 017478             | .170114            | .020695           |
| 23 | 021051            | .100587           | .084325            | 014628             | .183768            | .011764           |
| 24 | 018864            | .095547           | .085521            | 005551             | .193509            | .004944           |
| 25 | 016503            | .089162           | .080389            | .007717            | .204546            | 004061            |
| 26 | 012489            | .077383           | .077582            | .016457            | .206172            | 010683            |
| 27 | 013845            | .069715           | .073757            | .030934            | .199400            | 017223            |
| 28 | 012953            | .064902           | .070520            | .033530            | .182783            | 019998            |
| 29 | 018035            | .066354           | .068945            | .037469            | .152890            | 024674            |
| 30 | 023005            | .063317           | .063419            | .046893            | .115729            | 029969            |
| 31 | 022578            | .058557           | .053470            | .051610            | .074992            | 035345            |
| 32 | 022183            | .062057           | .045284            | .037857            | .049901            | 026987            |
| 33 | 024574            | .067001           | .037893            | .026885            | .037269            | 021041            |
| 34 | 027181            | .070356           | .033908            | .021029            | .027771            | 017748            |
| 35 | 030213            | .065062           | .028800            | .009461            | .019681            | 008949            |
| 36 | 032209            | .050151           | .021970            | .001046            | .017037            | 004375            |
| 37 | 028630            | .040475           | .018855            | 011182             | .010975            | 004491            |
| 38 | 018483            | .027138           | .011458            | 013815             | 001325             | 002401            |
| 39 | 009933            | .015946           | .000944            | 013140             | 010982             | .005405           |
| 40 | 009186            | .010392           | 005744             | 015573             | 009373             | .008648           |
| 41 | 010384            | .010221           | 002185             | 017652             | ~:018690           | .008693           |
| 42 | 011940            | .010947           | .003579            | 021206             | 025887             | .017061           |
| 43 | 015215            | .001645           | .011001            | 028868             | 022297             | .027409           |
| 44 | 016382            | 009522            | .016227            | 034159             | 021532             | .031753           |
| 45 | 015910            | 021625            | .017420            | 031056             | 027977             | .023502           |
| 46 | 017505            | 030353            | .013242            | 024756             | 041152             | .016926           |
| 47 | 012103            | 043443            | .013036            | 020351             | 053417             | .014030           |
| 48 | .001443           | 052868            | .010999            | 022497             | 062008             | .012883           |
| 49 | .011701           | 047322            | .006777            | 019576             | 067865             | .012157           |
| 50 | .018370           | 042058            | .005339            | 019824             | 069859             | .018545           |
| 51 | .021477           | 038448            | .003942            | 024112             | 067453             | .026245           |
| 52 | .028782           | 034344            | .002965            | 025927             | 064555             | .029157           |
| 53 | .032650           | 027575            | .003367            | 019335             | 057807             | .021886           |
| 54 | .035077           | 015783            | .005182            | 013339             | 041827             | .011758           |
| 55 | .035193           | 006438            | .006523            | 009281             | 023249             | 003060            |
| 56 | .032623           | 001848            | .007887            | 009281             | 012455             | 017594            |
| 57 | .032433           | 002516            | .009976            |                    |                    |                   |
| 58 | .030036           | 002518            |                    | 003866             | .001026            | 037318            |
| 59 | .030038           | 015310            | .013208<br>.017687 | .008087<br>.018497 | .013540<br>.021305 | 048182<br>046825  |
|    |                   |                   |                    |                    |                    |                   |
| 60 | .029823           | 014304            | .023833            | .017103            | .028978            | 046252            |

RUN NG. 85C 16M 11-16-62 1358-1503 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

# NORMALIZED QUADRATURE COVARIANCE

|          | THE COMBINATIONS   | COTALIANCE         |                    |                    |                    |   |
|----------|--------------------|--------------------|--------------------|--------------------|--------------------|---|
| M        | U,V                | U,W                | U.T                | V, W               | V.T                | W, T                                    |
|          | 0.10924            | 0.64952            | 0.86383            | 0.67048            | 0.89171            | 0.53020                                 |
|          | 10E 01             | 10E 00             | 10E-01             | 10E 00             | 10E-01             | 10E-01                                  |
| 1        | 000029             | 050207             | 017201             | .000830            | 043825             | .000778                                 |
| 2        | 000961             | 082938             | 028949             | 004914             | 052686             | .000027                                 |
| 3        | 001321             | 090144             | 040871             | 011910             | 056173             | 014011                                  |
| 4        | .001800            | 084779             | 045012             | 025421             | 056796             | 021940                                  |
| 5        | .002592            | 075282             | 046885             | 041339             | 054275             | 026379                                  |
| 6        | .004995            | 074849             | 048701             | 052555             | 052519             | 032185                                  |
| 7        | .007538            | 079105             | 045785             | 047645             | 052600             | 029159                                  |
| 8        | .004621            | 071582             | 041578             | 040027             | 048841             | 031257                                  |
| 9        | .009078<br>.017411 | 071249<br>074128   | 043214<br>050750   | 037741<br>038020   | 039791<br>031542   | 032333<br>034865                        |
|          |                    |                    |                    |                    |                    |   |
| 11       | . 023649           | 075314             | 055605             | 043686             | 026175             | 034739                                  |
| 12<br>13 | .029690            | 076330             | 055216<br>052383   | 043899             | 026252             | ~.038136                                |
| 14       | .033887<br>.035941 | 071815<br>069553   | 044603             | 037503<br>020232   | 025645<br>024178   | 037256<br>027382                        |
| 15       | .028329            | 063168             | 032363             | 013041             | 021487             | 027793                                  |
| 16       | .011087            | ~.052698           | 017446             | 023414             | 015274             | 037491                                  |
| 17       | 003073             | 044762             | 003350             | 033519             | 006039             | 042726                                  |
| 18       | 007021             | 039237             | .002577            | 029779             | .000324            | 040167                                  |
| 19       | 007367             | 025827             | .000173            | 027544             | •006043            | 032674                                  |
| 20       | 009385             | 015883             | 001478             | 016315             | .011066            | 023204                                  |
| 21       | 010779             | 009045             | 005969             | 009664             | .015662            | 014028                                  |
| 22       | 007780             | .000102            | 013367             | .002458            | .017283            | .003707                                 |
| 23       | .000453            | .004311            | 018236             | .007358            | .017909            | .015022                                 |
| 24       | .012500            | .012602            | 023671             | .006057            | .019329            | .019742                                 |
| 25       | .017746            | .026459            | 025215             | .008043            | • 01 9999          | .024535                                 |
| 26       | .018248            | .033251            | 023370             | .017860            | .019042            | .033894                                 |
| 27       | .011937            | .043084            | 016903             | .019181            | .019598            | .038820                                 |
| 28       | .008123            | .050219            | 011849             | .018456            | .025216            | .039397                                 |
| 29<br>30 | .007382<br>.007688 | .055280<br>.063310 | 014497<br>016634   | .019589<br>.019900 | •027361<br>•025380 | .041624<br>.041920                      |
|          |                    |                    |                    |                    |                    |   |
| 31       | .014390            | • 056565           | 019475             | .033841            | .022653            | .048537                                 |
| 32       | .012222            | .045984            | 016301             | .044095            | .020625            | .057747                                 |
| 33       | .009742            | .037468            | 010448             | .049060            | .017756            | •058506                                 |
| 34<br>35 | .005714<br>.000822 | .039919<br>.047722 | .000444<br>.013259 | .056824<br>.064110 | .018729<br>.017432 | .054520<br>.051598                      |
| ,,,      | • 00002            |                    |                    | 700 1115           |                    | *************************************** |
| 36       | 010440             | .051785            | .027904            | .053356            | .011066            | .042440                                 |
| 37       | 018072             | .051637            | .035132            | .036901            | .008078            | .025482                                 |
| 38       | 018981             | .032855            | .037328            | .031888            | -006141            | .014093                                 |
| 39<br>40 | 011835<br>010197   | .007993<br>008023  | .035526<br>.031854 | .026359<br>.022354 | .002990<br>.000737 | .003213<br>003152                       |
|          |                    |                    |                    |                    |                    |   |
| 41       | 011123<br>012801   | 009993<br>010662   | .026331            | .012112            | -003819            | 015501<br>026416                        |
| 42       |                    |                    | .019297            | .000443            | .004477            |   |
| 43<br>44 | 019250<br>023682   | 015442<br>018087   | .016095<br>.010047 | 009547<br>010986   | .005172<br>.000725 | 029998<br>022174                        |
| 45       | 026001             | 020344             | .007863            | 002746             | 001496             | 016419                                  |
| 44       | - 033075           | - 010344           | 011180             | 001802             | 003444             | - 014249                                |
| 46       | 033975<br>033140   | 019364<br>015356   | .011180<br>.012744 | .001892<br>.003524 | 007674             | 014269<br>012861                        |
| 48       | 017924             | 019108             | .005031            | .001217            | 008833             | 016436                                  |
| 49       | 005276             | 026999             | 002857             | 001758             | 007257             | 018969                                  |
| 50       | 000740             | 028767             | 003900             | 017776             | 004253             | 023279                                  |
| 51       | 001498             | 024196             | 004960             | 039893             | 002253             | 031934                                  |
| 52       | 005398             | 012096             | 001855             | 054946             | 003676             | 034322                                  |
| 53       | 001024             | 002224             | -,006819           | 050340             | 012049             | 029714                                  |
| 54       | .001472            | 002757             | 009876             | 050268             | 018758             | 029394                                  |
| 55       | 004455             | .001690            | 009271             | 049377             | 021188             | 019933                                  |
| 56       | 007806             | .009373            | 003325             | 045792             | 017556             | 007901                                  |
| 57       | 006050             | -011079            | .003260            | 046809             | 011368             | 008351                                  |
| 58       | .004535            | .019205            | 002088             | 046214             | 010488             | 012829                                  |
| 59       | .008135            | .026478            | 005426             | 045309             | 011764             | 009798                                  |
| 60       | .008247            | .031866            | 007466             | 041356             | 006669             | 003150                                  |

RUN NO. 85C 16M 11-16-62 1358-1503 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| М        | U                  | v                  | H                  | Ť                  |
|----------|--------------------|--------------------|--------------------|--------------------|
|          | 0.10582            | 0.11276            | 0.39866            | 0.70514            |
|          | 10E 01             | 10E 01             | 10E 00             | 10E-02             |
| 0        | 1.000000           | 1.000000           | 1.000000           | 1.000000           |
| i        | .844154            | .796771            | .666885            | .817556            |
| 2        | .673644            | .565581            | .366492            | .600575            |
| 3        | .550010            | .408070            | .209553            | .446267            |
| 4        | .452024            | .296285            | .109622            | .341557            |
| 5        | -367750            | -211478            | .041219            | .268486            |
| 6        | .287226            | .146250            | .013759            | .215060            |
| 7<br>8   | •209012<br>•144674 | .093097<br>.048481 | 000223<br>.000938  | .156565<br>.093758 |
| 9        | .086417            | .013325            | 014359             | .049967            |
| 10       | .028120            | 014985             | 047380             | .027542            |
| 11       | 018067             | 039301             | 054434             | .004423            |
| 12       | 066231             | 073622             | 073498             | 038127             |
| 13       | 111958             | 098449             | 102112             | 076225             |
| 14       | 149411             | 119396             | 130007             | 098617             |
| 15       | 183962             | 132420             | 128078             | 119421             |
| 16       | 209909             | 149895             | 118425             | 138999             |
| 17       | 236364             | 161752             | 121646             | 147672             |
| 18       | 260633             | 168619             | 136219             | 160311             |
| 19       | 281423             | 174475             | 118650             | 179291             |
| 20       | 288749             | 189247             | 116726             | 193656             |
| 21       | 284296             | 212123             | 116672             | 204825             |
| 22       | 278285             | 221850             | 123491             | 221879             |
| 23<br>24 | 280126<br>276792   | 225038             | 126722             | 243423             |
|          |                    | 225883             | 139597             | 262188             |
| 25       | 265094             | 236144             | 149224             | 276766             |
| 26<br>27 | 244334             | 238649             | 133948             | 278395             |
| 28       | 223927<br>205369   | 236178<br>220460   | 111593<br>085927   | 265315<br>241241   |
| 29       | 185042             | 189819             | 076670             | 204527             |
| 30       | 155235             | 152224             | 066464             | 157478             |
| 31       | 126109             | 099879             | 041148             | 114883             |
| 32       | 103512             | 058456             | 029177             | 088267             |
| 33       | 091028             | ~.038052           | 022610             | 071862             |
| 34       | 076561             | 016363             | 030929             | 059895             |
| 35       | 059631             | .002543            | 048273             | 050876             |
| 36       | 030701             | .014109            | 051246             | 046411             |
| 37       | 007505             | .020269            | 036314             | 035637             |
| 38       | .013976            | .020207            | 010620             | 014075             |
| 39       | .030929            | •020523            | .016965            | 002840             |
| 40       | .036773            | .019497            | .023385            | 005714             |
| 41       | .041767            | .035128            | .021284            | 003539             |
| 42<br>43 | .043618            | .048244            | .020945            | .000398            |
| 44       | .043939<br>.036128 | •045018<br>•042956 | .028358<br>.036201 | .001848<br>.010160 |
| 45       | .020673            | .049467            | .048450            | • 020039           |
| 46       | .008615            | .059660            | .049746            | .035880            |
| 47       | .005373            | .069559            | .062924            | .051377            |
| 48       | .001621            | .075443            | .062316            | .063692            |
| 49       | 012650             | .076999            | .046733            | .075221            |
| 50       | 025433             | .066120            | .046897            | .085704            |
| 51<br>52 | 036499<br>041705   | .053232            | .041213            | .086122            |
| 53       | 041705<br>043117   | .046061<br>.034782 | .035194            | .076197            |
| 54       | 051622             | .019456            | .031703<br>.023906 | .060800<br>.037513 |
| 55       | 058688             | .005437            | .012023            | •011753            |
| 56       | 056161             | 003213             | .013501            | 000019             |
| 57       | 050983             | 015645             | .026318            | 014720             |
| 58       | 043995             | 022204             | .019586            | 026309             |
| 59       | 039124             | 022035             | .029634            | 033815             |
| 60       | 032386             | 031000             | .026619            | 032631             |

RUN NG. BSC 16M 11-16-62 1358-1503 EST 61 PEINT RUNNING MEAN, NO BLOCK AVERAGING

|    |    |    |    | _ |   |   |
|----|----|----|----|---|---|---|
| EC | ıS | Pt | :C | п | w | и |

| K         | U, V             | U+M              | U.T              | V,H               | V,T              | W, T               |
|-----------|------------------|------------------|------------------|-------------------|------------------|--------------------|
|           | f0E-01           | 10E-01           | 10E-02           | 10E-02            | 10E-01           | 10E-03             |
| 0         | 007349           | 027317           | 057718           | .077534           | 008356           | .016190            |
| ĭ         | .106329          | 332402           | 449468           | .115856           | 078741           | .048855            |
| Ž         | .140722          | 420702           | 469432           | 185482            | 102053           | .044614            |
| 3         | .074155          | 388391           | 397080           | .115092           | 101391           | 222136             |
| 4         | .009817          | 243818           | 183927           | .531587           | 056903           | 390855             |
| 5         | 025518<br>066304 | 183184<br>138913 | 062241<br>051258 | .033116<br>317617 | 033320<br>034777 | .024337<br>.248251 |
| 7-8       | 055464           | 116561           | 032596           | .128159           | 031269           | 029738             |
| 9-11      | 004635           | 054996           | 017928           | 111461            | 018149           | 055579             |
| 12-15     | 015493           | 045822           | 011552           | .153053           | 012593           | 169482             |
| 16-20     | 011505           | 029197           | 002807           | .059361           | 007872           | 126968             |
| 21-27     | 005106           | 015166           | 001159           | .006625           | 005496           | 051021             |
| 28-36     | 000771           | 008905           | 001151           | 011304            | 003178           | 029164             |
| 37-47     | 000375           | 007346           | 000459           | .007023           | 001851           | 044940             |
| 48-60     | .000869          | 000980           | 000433           | 005186            | 001060           | 029193             |
| QUADRATUR | E SPECTRUM       |                  |                  |                   |                  |                    |
| K         | U. V             | U,W              | U, T             | V.W               | V,T              | W,T                |
|           | 10E-02           | 10E-01           | 10E-02           | 10E-01            | 10E-02           | 10E-02             |
| 1         | .656479          | 085891           | 151579           | 023153            | 013628           | 007851             |
| Ž         | .724934          | 177835           | 156497           | 104033            | 092943           | 069946             |
| 3         | . 344223         | 238868           | 118803           | 129267            | 164570           | 108512             |
| 4         | . 258470         | 128476           | 081682           | 040723            | 135671           | 028573             |
| 5         | .304299          | 034736           | 098151           | 010178            | 080672           | .029644            |
| 6         | 257794           | 041561           | 053152           | 025652            | 056711           | .003797            |
| 7-8       | 569016           | 041512           | .015360          | 004126            | 046124           | 008179             |
| 9-11      | .164303          | 038227           | 019000           | .007815           | 038788           | .002265            |
| 12-15     | 012995           | 025709           | 012563           | .005613           | 011936           | .001414            |
| 16-20     | 019407           | 014069           | .001908          | .014307           | 018379           | .006925            |
| 21-27     | .015020          | 006167           | 002066           | 005139            | 008098           | .001434            |
| 28-36     | 007478           | .001571          | .001642          | .001003           | 006762           | .000442            |
| 37-47     | .009661          | 000526           | 001943           | .000079           | 004503           | 001710             |
| 48-60     | 006043           | .000524          | 000631           | .000686           | 001293           | 000444             |
| POWER SPE | CTRUM            |                  |                  |                   |                  |                    |
| K         |                  | U                | v                | 1                 | н                | Ť                  |
|           | 106              | 00               | 10E 00           | 10E-              | -01              | 10E-02             |
| 0         | -01              | 6920             | .012118          | -01               | 1768             | .011014            |
| ĭ         |                  | 4944             | .117391          |                   | 8697             | .094958            |
| 2         | .19              | 1 386            | .158861          | . 34              | 2785             | .113641            |
| 3         | .19              | 6722             | .167038          |                   | 0835             | .107521            |
| 4         | •11              | 8474             | .099321          | - 28              | 8305             | .060240            |
| 5         |                  | 1321             | .060852          |                   | 1988             | .035605            |
| 6         |                  | 7061             | .063233          |                   | 5116             | .035805            |
| 7-8       |                  | 4793             | .054363          |                   | 7270             | .031951            |
| 9-11      |                  | 3 3 6 3          | .033989          |                   | 3545             | .018333            |
| 12-15     |                  | 4551             | .023824          |                   | 3916             | .013677            |
| 16-20     |                  | 9998             | .015236          |                   | 7548             | .009518            |
| 21-27     |                  | 7482             | .010366          |                   | 4503             | .006246            |
| 28-36     |                  | 4555             | .006532          |                   | 3498             | .003479            |
| 37-47     |                  | 3288             | .004265          |                   | 0657             | .002179            |
| 48-60     | .00              | 2101             | .002706          | • 01              | 9048             | .001485            |

RUN NC. 85C 16M 11-16-62 1358-1503 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

| M         | U,V                                     | U,W                | U,T                 | V,W                | V , T            | W.T                |
|-----------|---|--------------------|---------------------|--------------------|------------------|--------------------|
|           | 0.10805                                 | 0.44239            | 0.96922             | 0.40328            | 0.88352          | 0.36174            |
|           | 10E 01                                  | 10E 00             | 10E-01              | 10E 00             | 10E-01           | 10E-01             |
| _         |   | 500501             |                     |                    |                  |                    |
| 0         | 010064                                  | 502501             | 420185              | .059993            | 697480           | .024394            |
| 1         | 029911                                  | 210653             | 315789              | .027990            | 372588           | .066800            |
| 2         | 055481<br>026490                        | 057687<br>.070037  | 168997<br>085171    | .012183            | 124888<br>035449 | .069911<br>016851  |
| 4         | 018662                                  | .065670            | 018655              | .051270<br>022225  | .015730          | .015889            |
| •         | *************************************** | •005010            | *010033             | 022227             | •015150          | *013007            |
| 5         | .021838                                 | .033790            | .036832             | 030591             | .043910          | .005132            |
| 6         | .060627                                 | .069907            | .062538             | 004576             | .087732          | 044409             |
| 7         | .056364                                 | .021272            | .060919             | .010925            | .139140          | 020996             |
| 8         | .011430                                 | .001835            | .073909             | .038189            | .070792          | 006128             |
| 9         | .027874                                 | 012380             | .077480             | .066125            | .037441          | 000797             |
| 10        | .029858                                 | .041112            | .091593             | .049054            | .031928          | 041098             |
| ii        | .013548                                 | .059236            | .119269             | .034358            | .050717          | 066638             |
| 12        | .015964                                 | .030248            | .097062             | 019502             | .091554          | .013092            |
| 13        | .014118                                 | .039315            | .106666             | 0581 +0            | .105637          | 011498             |
| 14        | .012443                                 | .101945            | .082679             | 067976             | .098487          | 015889             |
| 15        | .021947                                 | .067890            | .056150             | 070502             | .094924          | 000850             |
| 16        | 032858                                  | .050261            | .060034             | 084142             | .069827          | .029870            |
| 17        | 016784                                  | 012840             | 017745              | 121028             | 001144           | .104014            |
| 18        | 043348                                  | 033053             | 018669              | 004844             | 021517           | .026446            |
| 19        | 095356                                  | 081587             | .053442             | .073023            | .035452          | 042665             |
|           |   |                    |                     |                    |                  |                    |
| 20        | 088950                                  | 064975             | .092417             | 001321             | .107945          | 042284             |
| 21        | 090710                                  | .001363            | .069662             | .019241            | .081726          | 043682             |
| 22        | 060873                                  | .072301            | .026733             | 028039             | .007363          | .025121            |
| 23<br>24  | 056055<br>003947                        | •062121<br>•039414 | •032229<br>••020979 | 008596             | .007319          | 001510             |
| 24        | 003941                                  | •037414            | 020919              | .000878            | .015258          | 016865             |
| 25        | .109713                                 | .017496            | 131248              | 010283             | 024479           | .028923            |
| 26        | .166325                                 | 023337             | 180231              | 012863             | 059988           | .041611            |
| 27        | .167209                                 | 020106             | 157555              | 051647             | 113545           | .064311            |
| 28        | .090228                                 | .009974            | 087486              | .025840            | 140422           | .012172            |
| 29        | .017324                                 | 066699             | 031766              | .059066            | 068164           | 027080             |
| 30        | 050555                                  | 037121             | .040066             | .096390            | .012547          | 029143             |
|           |   |                    |                     |                    |                  |                    |
| COSPECTRU | )ei                                     |                    |                     |                    |                  |                    |
| K         | U, V                                    | U,W                | U, T                | V.W                | V.T              | w, T               |
|           | 10E-01                                  | 10E-01             | 10E-02              | 10E-02             | 10E-02           | 10E-03             |
| 0         | - 004401                                | 012801             | - 030711            | 040050             | - 051507         | 040700             |
| 0<br>1    | 004401<br>.053345                       | 122524             | 038711<br>523726    | .040959<br>.666212 | 051587<br>551194 | .049709<br>.241803 |
| 2         | 045340                                  | 154886             | 687689              | .553254            | 647763           | •343329            |
| 3         | -, 236878                               | 180467             | 682896              | 078932             | 647274           | .573613            |
| 4         | 124570                                  | 137481             | 513702              | 461922             | 559997           | .564083            |
|           |   |                    |                     |                    |                  |                    |
| 5         | 049207                                  | 129221             | 332717              | .252113            | 500635           | .150229            |
| 6         | 099560                                  | 206791             | 259053              | .924785            | 488170           | .012460            |
| 7         | -018664                                 | 198907             | 322281              | . 466985           | 447512           | . 324540           |
| 8         | .059564                                 | 128117             | 196378              | 101158             | 246562           | .182848            |
| 9-11      | .075499                                 | 113738             | 105757              | 189051             | 217028           | 035438             |
| 12-14     | .019786                                 | 088535             | 078595              | 039081             | 252739           | .023281            |
| 15-21     | .026063                                 | 039131             | 049559              | .202371            | 124971           | 246024             |
| 22-3C     | 011823                                  | 064299             | 007468              | .008233            | 095700           | 027708             |
|           |   |                    |                     |                    |                  |                    |

RUN NC. 85C 16M 11-16-62 1358-1503 EST 301 PCINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

## NORMALIZED QUADRATURE COVARIANCE

| м          | U,V               | U,W               | U, T              | V, W              | V , T             | W, T              |
|------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
|            | 0.10805<br>10E 01 | 0.44239<br>10E 00 | 0.96922<br>10E-01 | 0.40328<br>10E 00 | 0.88352<br>10E-01 | 0.36174<br>10E-01 |
| •          | - 010725          | - 10/100          | - 044307          | 0/5317            | 02/3/0            | 055370            |
| 1<br>2     | 010735            | 104100<br>030795  | 046287<br>052543  | 065317<br>024838  | 026768            | 055379            |
| 3          | 022483<br>037288  | .015836           | 045479            | 023273            | 000109<br>.018161 | 016015<br>.008148 |
| 4          | 080027            | 016380            | 003426            | 051695            | 011857            | 046728            |
| 5          | 099533            | .000602           | .003513           | 106748            | 026690            | 072049            |
| 6          | 093945            | .012251           | .026882           | 130536            | 041368            | 065976            |
| 7          | 100494            | 024674            | .054088           | 073159            | 042765            | 070816            |
| 8          | 064645            | 106424            | .040874           | .008865           | 049822            | 022514            |
| 9          | 012005            | 067458            | 011393            | . 026298          | 027498            | .028511           |
| 10         | 026755            | 032198            | 030593            | 022420            | 037170            | •004327           |
| 11         | 028561            | .063371           | 036596            | 032346            | 020331            | .020116           |
| 12         | .008628           | .015026           | 019924            | .030049           | .005203           | .033290           |
| 13         | .016662           | .027841           | 014344            | .046385           | 007502            | .046713           |
| 14         | .073817           | .007676           | 030052            | .046223           | 004926            | .056694           |
| 15         | .060957           | .005222           | 012733            | .012636           | .016655           | .000019           |
| 16         | .038144           | .009115           | 013703            | .000466           | .028980           | .003433           |
| 17         | .064987           | .012016           | 024544            | .068649           | .011228           | .035572           |
| 18         | .047680           | 010206            | .001664           | .043708           | 018201            | 005277            |
| 19         | .017724           | 016639            | .002629           | 002832            | 025333            | 010003            |
| 20         | .003301           | .013121           | .010082           | .020193           | 023328            | .026221           |
| 21         | .013449           | .052687           | .006785           | .017653           | .019004           | .066690           |
| 22         | .005333           | .035200           | .005655           | .005501           | 004018            | .021563           |
| 23         | 048347            | .071511           | .015949           | 010682            | 028310            | .028503           |
| 24         | 035479            | .110030           | .017668           | .025213           | 007686            | .069176           |
| 25         | 033096            | •054480           | •050946           | .003180           | .010224           | .007829           |
| 26         | 038170            | .011330           | .043666           | .003839           | .011095           | .009341           |
| 27         | 026350            | 002498            | .015380           | 015566            | .000789           | 004319            |
| 28         | .045452           | 029235            | 062401            | 038667            | .015105           | 004197            |
| 29         | .072135           | .003356           | 100054            | 049380            | .031239           | 021686            |
| 30         | .029235           | 079097            | 069556            | 047433            | .039171           | 074625            |
| QUADRATURE | SPECTRUM          |                   |                   |                   |                   |                   |
| K          | U,V               | U,W               | U, T              | V.M               | V,T               | W.T               |
|            | 10E-01            | 10E-02            | 10E-02            | 10E-01            | 108-02            | 10E-03            |
| 1          | 167954            | 252546            | 061311            | 038457            | 138060            | .007084           |
| 2          | 314210            | 586749            | 014690            | 091541            | 109023            | 510125            |
| 3          | 386709            | 426850            | .042515           | 119108            | 081927            | 742218            |
| 4          | 146183            | 193560            | 011745            | 074372            | 002055            | 596261            |
| 5          | .033642           | .196669           | 107455            | 024871            | •069202           | 157218            |
| 6          | .038957           | .381685           | 157478            | .002606           | .053963           | .283977           |
| 7          | .050314           | 211317            | 158209            | .023119           | .014588           | .255638           |
| 8          | .076389           | 666581            | 109145            | .035480           | .010414           | .142412           |
| 9-11       | .032479           | 586452            | 005557            | .011218           | 021476            | 047043            |
| 12-14      | 012718            | 101204            | 040425            | 065566            | 036079            | 316590            |
| 15-21      | 013826            | 463210            | .006463           | 009656            | 023698            | 203649            |
| 22-30      | .011336           | .027439           | 020896            | 008691            | .004750           | .039712           |

RUN NO. 85C 16M 11-16-62 1358-1503 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

| M)            | U        | ٧        | W        | T        |
|---------------|----------|----------|----------|----------|
|               | 0.11853  | 0.98497  | 0.16511  | 0.79252  |
|               | 10E 01   | 10E 00   | 10E 00   | 10E-02   |
| 0             | 1.000000 | 1.000000 | 1.000000 | 1.000000 |
| ĭ             | .570510  | •501706  | .133983  | .618980  |
| ž             | .220795  | .180035  | 047419   |          |
| 3             | .024260  | .064819  | ~.131364 | .284164  |
| 4             | 056364   | 005043   |          | -127060  |
|               |          | -1003043 | 067092   | .011385  |
| 5             | 139872   | 066255   | 037961   | 056908   |
| 6             | 168066   | 139218   | 020508   | 127950   |
| 7             | 112974   | 204503   | 005600   | 178185   |
| 8             | 097566   | 138275   | 031008   | 110800   |
| 9             | 152311   | 132166   | 042474   | 076578   |
| 10            | 203037   | 130802   | 084693   | 071864   |
| 11            | 207057   | 138569   | 005408   | 120049   |
| 12            | 131254   | 137743   | 095051   | 167998   |
| 13            | 136712   | 130603   | 066879   | 155191   |
| 14            | 149047   | 124503   | 086891   | 146789   |
| 15            | 146095   | 079950   | .010453  | 179218   |
| 16            | 073007   | .014559  | 053298   | 158402   |
| 17            | .022639  | .079402  | 066611   | 048628   |
| 18            | .084234  | .092730  | .048553  | 030036   |
| 19            | .119679  | .046379  | .069597  | 111096   |
| 20            | .099700  | 043477   | .046236  | - 177030 |
| 21            | .034961  | 027049   |          | 177830   |
| 22            | 026194   | .029185  | .042074  | 140535   |
| 23            | 064674   |          | .002668  | 053015   |
|               |          | 010535   | 055397   | 010509   |
| 24            | 004190   | 072464   | 032039   | .008357  |
| 25            | •095160  | 055168   | 043773   | .083386  |
| 26            | .135102  | 062965   | .016349  | .162220  |
| 27            | .092633  | .024551  | .004504  | .182807  |
| 28            | .004627  | .070810  | .003562  | .193159  |
| 29            | .007847  | .032570  | .165813  | .107581  |
| 30            | •008305  | 017830   | .039643  | 003149   |
|               |          |          |          |          |
| POWER SPECTRE | UM       |          |          |          |
|               |          |          |          |          |
| K             | U        | V        | W        | T        |
|               | 10E 00   | 10E 00   | 106-02   | 10E-02   |
| 0             | •004999  | 007751   |          |          |
| 1             | .076201  | .007751  | .032632  | .009149  |
| 2             |          | .070455  | • 444789 | •095006  |
| 3             | -126811  | .095495  | .663845  | .106087  |
|               | .160226  | .123877  | -818514  | .095747  |
| 4             | .118884  | .102309  | .625174  | .078320  |
| 5             | .084952  | .067665  | .580758  | .069840  |
| 6             | .095672  | .065047  | .836142  | .061763  |
| 7             | .090795  | .062386  | .882922  | .055394  |
| 8             | .063906  | .039751  | .864891  |          |
| 9-11          | .048536  | .034926  |          | •031866  |
|               |          | •U34720  | .889315  | •023051  |
| 12-14         | .031093  | .036886  | .715417  | .026528  |
| 15-21         | .023303  | .022452  | .635447  | .012436  |
| 22-30         | .017107  | .018669  | . 786655 | .009260  |
|               |          |          |          |          |

## RUN NO. 85C 40M 11-16-62 1358-1503 EST

## GROSS STATISTICS

| VARIANCES   VARIANCES   VARIANCES   VARIANCES   VARIANCES   V   | CLEAR<br>TRANSITIONAL<br>LAND           | WIND SI<br>Sigma /<br>Sigma i | 9.5 DEG      | WIND DIRE<br>SOLAR RAE<br>NET RADIA |                                    |
|---|---|-------------------------------|--------------|-------------------------------------|------------------------------------|
| VARIANCES   VARIANCES   VARIANCES   VARIANCES   VARIANCES   V   |   |                               |              |                                     |                                    |
| U 0.27385E 01 0.19781E 01 0.11635E 01 0.45026E 01 W 0.19680E 01 0.15094E 01 0.10620E 01 0.94955E 00 W 0.65365E 00 0.2149E 00 0.56835E 00 0.26348E-00 T 0.21682E-01 0.98582E-02 0.57456E-02 0.71371E-02 E 0.26801E 01 0.20545E 01 0.13970E 01  GUSTINESS RATIOS  |   |                               |              |                                     | 301 PT RUN MEAN<br>10 PT BLOCK AVG |
| V 0.19680E 01 0.15094E 01 0.16620E 01 0.94955E 00 W 0.65365E 00 0.62149E 00 0.56835E 00 0.26348E-00 T 0.21682E-01 0.98582E-02 0.57456E-02 0.71371E-02 E 0.26801E 01 0.20545E 01 0.13970E 01  GUSTINESS RATIOS   | VARIANCES                               |                               |              |                                     |                                    |
| W   0.65365E 00   0.62149E 00   0.56835E 00   0.26348E-00     T   0.21682E-01   0.98582E-02   0.57456E-02   0.71371E-02     E   0.26801E 01   0.20545E 01   0.13970E 01     GUSTINESS RATIOS  |   |                               |              |                                     |                                    |
| T 0.21682E-01 0.98582E-02 0.57456E-02 0.71371E-02  E 0.26801E 01 0.20545E 01 0.13970E 01  GUSTINESS RATIOS  | -                                       |                               |              |                                     |                                    |
| E 0.26801E 01 0.20545E 01 0.13970E 01  GUSTINESS RATIOS  U 0.19310 0.16411 0.12587 0.14304 V 0.16369 0.14336 0.12025 0.11370 W 0.09434 0.09199 0.08797 0.05989  COVARIANCES  U,V -0.29133E-00 -0.35535E-02 0.27313E-01 -0.13040E-01 U,M -0.55460E 00 -0.48620E-00 -0.33799E-00 -0.35296E-00 U,T -0.89113E-01 -0.57081E-01 -0.22407E-01 -0.51300E-01 V,H 0.47167E-01 0.41539E-01 -0.22156E-01 0.36617E-01 V,T -0.94707E-01 -0.86183E-01 -0.57637E-01 -0.59388E-01 M,T 0.93742E-02 0.61491E-02 0.52876E-02 0.48386E-02  NORMALIZED COVARIANCES  U,V -0.12550 -0.00206 0.02457 -0.01092 U,H -0.41453 -0.43857 -0.41563 -0.56095 U,T -0.36571 -0.40876 -0.27405 -0.49536 V,H 0.04159 -0.40876 -0.27405 -0.49536 V,H 0.04159 -0.40889 -0.02852 0.07321 V,T -0.45849 -0.70652 -0.73785 -0.70926 | • |                               |              |                                     |                                    |
| U 0.19310 0.16411 0.12587 0.14304 V 0.16369 0.14336 0.12025 0.11370 M 0.09434 0.09199 0.08797 0.05989  COVARIANCES  | T                                       | 0.21682E-01                   | 0.98582E-02  | 0.57456E-02                         | 0.71371E-02                        |
| U 0.19310 0.16411 0.12587 0.14304 V 0.16369 0.14336 0.12025 0.11370 W 0.09434 0.09199 0.08797 0.05989  COVARIANCES  | E                                       | 0.26801E 01                   | 0.20545E 01  | 0.13970E 01                         |                                    |
| V   |   | S -                           |              |                                     |                                    |
| V   | *1                                      | 0.19310                       | 0-16411      | 0.12587                             | 0-14304                            |
| COVARIANCES  U,V -0.29133E-00 -0.35535E-02 0.27313E-01 -0.13040E-01 U,W -0.55460E 00 -0.48628E-00 -0.33799E-00 -0.35296E-00 U,T -0.89113E-01 -0.57081E-01 -0.22407E-01 -0.51300E-01 V,W 0.47167E-01 0.41539E-01 -0.22156E-01 0.36617E-01 V,T -0.94707E-01 -0.86183E-01 -0.57637E-01 -0.58388E-01 W,T 0.93742E-02 0.61491E-02 0.52876E-02 0.48386E-02  NE 0.37908E-00 0.34159E-00 0.21687E-00  NORMALIZED COVARIANCES  U,V -0.12550 -0.00206 0.02457 -0.01092 U,W -0.41453 -0.43857 -0.41563 -0.56095 U,T -0.36571 -0.40876 -0.27405 -0.49536 V,W 0.04159 0.04289 -0.02852 0.07321 V,T -0.45849 -0.70652 -0.73785 -0.70926   |   |                               |              |                                     |                                    |
| U,V -0.29133E-00 -0.35535E-02 0.27313E-01 -0.13040E-01 U,W -0.55460E 00 -0.48628E-00 -0.33799E-00 -0.35296E-00 U,T -0.89113E-01 -0.57081E-01 -0.22407E-01 -0.51300E-01 V,W 0.47167E-01 0.41539E-01 -0.22156E-01 0.36617E-01 V,T -0.94707E-01 -0.86183E-01 -0.57637E-01 -0.58388E-01 W,T 0.93742E-02 0.61491E-02 0.52876E-02 0.48386E-02  NE 0.37908E-00 0.34159E-00 0.21687E-00  NORMALIZED COVARIANCES  U,V -0.12550 -0.00206 0.02457 -0.01092 U,W -0.41453 -0.43857 -0.41563 -0.56095 U,T -0.36571 -0.40876 -0.27405 -0.49536 V,W 0.04159 0.04289 -0.02852 0.07321 V,T -0.45849 -0.70652 -0.73785 -0.70926  |   |                               |              |                                     |                                    |
| U,W -0.55460E 00 -0.48628E-00 -0.33799E-00 -0.35296E-00 U,T -0.89113E-01 -0.57081E-01 -0.22407E-01 -0.51300E-01 V,W 0.47167E-01 0.41539E-01 -0.22156E-01 0.36617E-01 V,T -0.94707E-01 -0.86183E-01 -0.57637E-01 -0.58388E-01 W,T 0.93742E-02 0.61491E-02 0.52876E-02 0.48386E-02  WE 0.37908E-00 0.34159E-00 0.21687E-00  NORMALIZED COVARIANCES  U,V -0.12550 -0.00206 0.02457 -0.01092 U,W -0.41453 -0.43857 -0.41563 -0.56095 U,T -0.36571 -0.40876 -0.27405 -0.49536 V,W 0.04159 0.04289 -0.02852 0.07321 V,T -0.45849 -0.70652 -0.73785 -0.70926   | COVARIANCES                             |                               |              |                                     |                                    |
| U,W -0.55460E 00 -0.48628E-00 -0.33799E-00 -0.35296E-00 U,T -0.89113E-01 -0.57081E-01 -0.22407E-01 -0.51300E-01 V,W 0.47167E-01 0.41539E-01 -0.22156E-01 0.36617E-01 V,T -0.94707E-01 -0.86183E-01 -0.57637E-01 -0.58388E-01 W,T 0.93742E-02 0.61491E-02 0.52876E-02 0.48386E-02  WE 0.37908E-00 0.34159E-00 0.21687E-00  NORMALIZED COVARIANCES  U,V -0.12550 -0.00206 0.02457 -0.01092 U,W -0.41453 -0.43857 -0.41563 -0.56095 U,T -0.36571 -0.40876 -0.27405 -0.49536 V,W 0.04159 0.04289 -0.02852 0.07321 V,T -0.45849 -0.70652 -0.73785 -0.70926   | ŧi.v                                    | -0.29133E-00                  | -0.35535E-02 | 0.27313E-01                         | -0.13040E-01                       |
| U,T   |   |                               |              | -0.33799E-00                        | -0.35296E-00                       |
| V,T   |   | -0.89113E-01                  | -0.57081E-01 | -0.22407E-01                        | -0.51300E-01                       |
| W,T 0.93742E-02 0.61491E-02 0.52876E-02 0.48386E-02  WE 0.37908E-00 0.34159E-00 0.21687E-00  NORMALIZED COVARIANCES  U,V -0.12550 -0.00206 0.02457 -0.01092 U,W -0.41453 -0.43857 -0.41563 -0.56095 U,T -0.36571 -0.40876 -0.27405 -0.49536 V,W 0.04159 0.04289 -0.02852 0.07321 V,T -0.45849 -0.70652 -0.73785 -0.70926  | V.W                                     | 0.47167E-01                   | 0.41539E-01  | -0.22156E-01                        | 0.36617E-01                        |
| NORMALIZED COVARIANCES  U,V -0.12550 -0.00206 0.02457 -0.01092 U,H -0.41453 -0.43857 -0.41563 -0.56095 U,T -0.36571 -0.40876 -0.27405 -0.49536 V,H 0.04159 0.04289 -0.02852 0.07321 V,T -0.45849 -0.70652 -0.73785 -0.70926   | V,T                                     | -0.94707E-01                  | -0.86183E-01 | -0.57637E-01                        | -0.58388E-01                       |
| NORMALIZED COVARIANCES  U,V -0.12550 -0.00206 0.02457 -0.01092 U,W -0.41453 -0.43857 -0.41563 -0.56095 U,T -0.36571 -0.40876 -0.27405 -0.49536 V,W 0.04159 0.04289 -0.02852 0.07321 V,T -0.45849 -0.70652 -0.73785 -0.70926   | W,T                                     | 0.93742E-02                   | 0.61491E-02  | 0.52876E-02                         | 0.48386E-02                        |
| U,V -0.12550 -0.00206 0.02457 -0.01092 U,W -0.41453 -0.43857 -0.41563 -0.56095 U,T -0.36571 -0.40876 -0.27405 -0.49536 V,W 0.04159 0.04289 -0.02852 0.07321 V,T -0.45849 -0.70652 -0.73785 -0.70926   | WE                                      | 0.37908E-00                   | 0.34159E-00  | 0.21687E-00                         |                                    |
| U,W       -0.41453       -0.43857       -0.41563       -0.56095         U,T       -0.36571       -0.40876       -0.27405       -0.49536         V,W       0.04159       0.04289       -0.02852       0.07321         V,T       -0.45849       -0.70652       -0.73785       -0.70926  | NORMALIZED COVA                         | RIANCES                       |              |                                     |                                    |
| U,W     -0.41453     -0.43857     -0.41563     -0.56095       U,T     -0.36571     -0.40876     -0.27405     -0.49536       V,W     0.04159     0.04289     -0.02852     0.07321       V,T     -0.45849     -0.70652     -0.73785     -0.70926  |   |                               |              | 0.03457                             | 0.01003                            |
| U,T -0.36571 -0.40876 -0.27405 -0.49536<br>V,W 0.04159 0.04289 -0.02852 0.07321<br>V,T -0.45849 -0.70652 -0.73785 -0.70926  |   |                               |              |                                     |                                    |
| V.W 0.04159 0.04289 -0.02852 0.07321<br>V.T -0.45849 -0.70652 -0.73785 -0.70926   |   |                               |              |                                     |                                    |
| V.T -0.45849 -0.70652 -0.73785 -0.70926   | •                                       |                               |              |                                     |                                    |
| 1110101 1110101 1110101   |   |                               |              |                                     |                                    |
|   | W,T                                     | 0.07874                       | 0.07856      | 0.09253                             | 0.11158                            |

RUN NO. 85C 40M 11-16-62 1358-1503 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| NUKMAL   | .IZEU CUSPECIKUM     | COANTANCE         |                   |                   |                   |                    |
|----------|----------------------|-------------------|-------------------|-------------------|-------------------|--------------------|
| M        | U,V                  | U, W              | U, T              | V. W              | V.T               | W. T               |
|          |                      |                   |                   |                   |                   |                    |
|          | 0.11117<br>10E 0!    | 0.81317<br>10E 00 | 0.81766<br>10E-01 | 0.77683<br>10E 00 | 0.78111<br>10E-01 | 0.57133<br>10E-01  |
| _        |                      |                   |                   |                   |                   | *****              |
| 0        | .024698              | 415615            | 274064            | 028815            | 737814            | .092496            |
| 1        | .020831              | 380153            | 266688            | 015583            | 625862            | .090644            |
| 2        | .017000              | 311203            | 250208            | 004971            | 471791            | .076405            |
| 3        | .016030              | 247817            | 227577            | 000539            | 356725            | .057074            |
| 4        | .021542              | 200249            | 204228            | .003982           | 283563            | .037817            |
| 5        | .028551              | 159569            | 177489            | .001311           | 225675            | .031039            |
| 6        | .031123              | 119327            | 151390            | 005924            | 166242            | .038232            |
| 7        | .025050              | 080748            | 122579            | 011802            | 106876            | .046387            |
| 8        | .027208              | 050740            | 102956            | 010644            | 056484            | .043887            |
| 9        | .025697              | 023659            | 084306            | 002274            | 018648            | .034317            |
| 10       | .013056              | 000029            | 062941            | .016295           | .012938           | .020791            |
| 11       | .001724              | .021376           | 040488            | .025273           | .039688           | .011299            |
| 12       | 000838               | .037770           | 023423            | .030309           | .052099           | 002554             |
| 13       | 000849               | .042801           | 010678            | .027852           | .059580           | 013424             |
| 14       | .003162              | .038134           | 004564            | .025664           | .069830           | 025088             |
| 15       | .005430              | .037563           | .003678           | .020977           | .085665           | 033053             |
| 16       | .008598              | .048164           | .009281           | .014946           | .099437           | 037512             |
| 17       | .013711              | .063485           | .014164           | .008386           | .111018           | 036307             |
| 18       | .009881              | .077739           | .027964           | .008848           | .123202           | 035153             |
| 19       | 002313               | .095479           | .048176           | .018020           | .139864           | 036379             |
| 20       | 012575               | .106450           | .068065           | .025613           | .155405           | 038661             |
| 21       | 015911               | .116444           | .082380           | .031808           | .170635           | 041485             |
| 22       | 014177               | .127727           | .093614           | .025836           | .177624           | 039049             |
| 23       | 010974               | .130936           | .103660           | .021702           | .181626           | 038293             |
| 24       | 016307               | .124058           | .115515           | .020813           | .181440           | 043098             |
| 25       | 022335               | .120219           | .126257           | .013797           | .175316           | 041344             |
| 26       | 021838               | .115462           | .132589           | .006338           | .166861           | 034315             |
| 27       | 025481               | .104712           | .138794           | .004102           | .155615           | 034380             |
| 28       | 030819               | .096069           | .141157           | 003242            | .145302           | 032217             |
| 29       | 030317               | .088761           | .138969           | 009577            | .123948           | 020163             |
| 30       | 036030               | .085506           | .139127           | 010084            | .099805           | 015375             |
| 31       | 041368               | .082139           | .141585           | 003579            | .079242           | 021039             |
| 32       | 051495               | .075534           | .141774           | 006381            | .061288           | 025086             |
| 33       | 059728               | .066609           | .139112           | 014243            | .049529           | 024949             |
| 34       | 061028               | .059962           | .133887           | 016406            | .052083           | 027787             |
| 35       | 063074               | .052519           | .126679           | 011846            | .054651           | 033315             |
| 36       | 069673               | .046283           | .124123           | 003343            | .062297           | 036642             |
| 37       | 070886               | .043943           | .121188           | .001013           | .069811           | 034294             |
| 38       | 066954               | .052577           | .112354           | 001230            | .073852           | 026944             |
| 39       | 056455               | .056961           | .100553           | 004369            | .060947           | 021946             |
| 40       | 044131               | .054854           | -085744           | 008820            | -038697           | 016775             |
| 41       | 031704               | .052493           | .069485           | 008737            | 030010            | 01701/             |
| 42       | 024814               | .051006           | .056130           | 000469            | .020860           | 017818             |
| 43       | 018323               | .037354           | .044952           | .009840           | 010809            | 018194             |
| 44       | 008593               | .016399           | .034071           | .018836           | 025424            | 017425             |
| 45       | .002143              | .000787           | .020274           | .026305           | <b></b> ∩30753    | 017577             |
| 46       | .013874              | 007520            | .020274           | •026305           | 039753<br>059256  | 017577<br>016536   |
| 47       | •027922              | 011543            | 008528            | .025598           | 086490            | 014380             |
| 48       | .042998              | 023726            | 027335            | .019777           | 104249            | 008816             |
| 49       | .054556              | 028032            | 041480            | .013908           | 107808            | 006671             |
|          | 040540               | - 03/4/4          | 040740            | 005335            | 101513            | 000000             |
| 50<br>51 | • 060548<br>• 062646 | 026444            | 048769            | .005328<br>008317 | 104563            | 002090             |
| 52       | .062444<br>.067807   | 022406<br>023941  | 054119<br>068657  | 008317<br>027631  | 102978<br>099189  | .012203<br>.026955 |
| 53       | .067306              | 032292            | 081537            | 044033            | 094184            | .040354            |
| 54       | .063829              | 032820            | 089857            | 049084            | 069230            | .046558            |
| 55       | .058985              | 027579            | 093355            | - 040151          | 056935            | 040003             |
| 56       | • 056737             | 023240            | 094619            | 049151<br>048267  | 046207            | .049887<br>.048869 |
| 57       | .060155              | 028558            | 093988            | 048028            | 035934            | .042942            |
| 58       | .063166              | 032869            | 089482            | 056848            | 020068            | .045086            |
| 59       | .066105              | 043532            | 085756            | 067129            | .001098           | .054483            |
| 60       | .073263              | 044357            | 087414            | 069472            | .022610           | .059265            |
| -        | 1015205              | *******           | .00/717           | 1007712           | .022010           | • 477603           |

RUN NO. 85C 40M 11-16-62 1358-1503 EST 61 POINT RUNNING MEAN. HO BLOCK AVERAGING

# NORMALIZED QUADRATURE COVARIANCE

| М  | U.V                | U, W              | U, T              | ٧,٧              | V,1              | W, T               |
|----|--------------------|-------------------|-------------------|------------------|------------------|--------------------|
|    |                    |                   |                   | 0.77683          | 0.78111          | 0.57133            |
|    | 0111117<br>10E 01  | 0.81317<br>10E 00 | 0.81766<br>10E-01 | 10E 00           | 10E-01           | 10E-01             |
| 1  | .013392            | 015480            | 033921            | .008829          | ~.034111         | .010538            |
| 2  | .021142            | 031763            | 051218            | .013346          | 048583           | .026325            |
| 3  | .026233            | 039946            | 060523            | .018673          | 052270           | .035587            |
| 4  | .028375            | 037242            | 066463            | .023650          | 048781           | .042877            |
| 5  | .029348            | 032815            | 068448            | .019267          | 045129           | .047360            |
| 6  | -027146            | 032749            | 065784            | .014604          | 042906           | .047756            |
| 7  | .029888            | 038720            | 066029            | .003312          | 043206           | .040928            |
| 8  | .027276<br>.021193 | 038288            | 058642            | 007295           | 038321<br>034177 | .031182            |
| 10 | .013718            | 034434<br>030700  | 047391<br>036942  | 008954<br>010443 | 029419           | .026054<br>.020088 |
| 11 | .009875            | 035497            | 028770            | 014650           | 023029           | .013818            |
| 12 | .010152            | 041784            | 024904            | 024968           | 017597           | 001784             |
| 13 | .011354            | 040228            | 021484            | 026327           | 016124           | 010429             |
| 14 | .011414            | 037978            | 019959            | 023492           | 015533           | 007874             |
| 15 | .003055            | 027720            | 009480            | 018895           | 013717           | 000501             |
| 16 | 006141             | 020836            | .002400           | 011264           | 014192           | .003018            |
| 17 | 013292             | 010461            | .008250           | 007333           | 016158           | .002189            |
| 18 | 025231             | .001402           | .013596           | 010505           | 022120           | 001236             |
| 19 | 033202             | .008841           | .018855           | 011490           | 026370           | 002357             |
| 20 | 039342             | .015199           | .021461           | 019734           | 027759           | 006962             |
| 21 | ~.044499           | .022196           | .019988           | 032563           | 027510           | 010236             |
| 22 | 045134             | .024367           | .014803           | 033439           | 029040           | 009465             |
| 23 | 047623             | .029259           | .014266           | 032568           | 030396           | 011610             |
| 24 | 054513             | .039294           | .019805           | 035866           | 030525           | 017964             |
| 25 | 054921             | .035142           | .022009           | 040348           | 024581           | 023250             |
| 26 | 045897             | .015774           | .016168           | 038625           | 011427           | 031116             |
| 27 | 033454             | 005061            | .010705           | 018764           | .000250          | 023652             |
| 28 | 026548             | 021007            | .010907           | .001274          | .010059          | 008683             |
| 29 | 028397             | 028661            | .015551           | .008761          | .018656          | 003631             |
| 30 | 025064             | 031602            | .014494           | .010212          | .022107          | 004450             |
| 31 | 013049             | 019380            | .005140           | .018294          | .018387          | .001800            |
| 32 | 000020             | 008001            | 003914            | .024700          | .015956          | .010925            |
| 33 | .010911            | 005550            | 011976            | .032652          | .014327          | .016254            |
| 34 | .020966            | 001632            | 019142            | .041767          | .015947          | .020859            |
| 35 | .025958            | .004670           | 023509            | •044975          | .019660          | •025029            |
| 36 | .026306            | .007062           | 018460            | .044812          | .020892          | .025523            |
| 37 | .021660            | .010777           | 008735            | .042847          | .018956          | .019931            |
| 38 | .010694            | .012269           | .004048           | .031089          | .015678          | .008322            |
| 39 | .002443            | .006564           | .013519           | .018989          | •010134          | .003241            |
| 40 | 002751             | 005281            | .017295           | .013711          | .000205          | .000743            |
| 41 | 006730             | 011486            | .020749           | .008332          | 008196           | 003606             |
| 42 | 012396             | 020666            | .027614           | .001308          | 008229           | 012829             |
| 43 | 022926             | 030128            | .038639           | 009447           | 001942           | 028104             |
| 44 | 024374             | 032972            | .044556           | 013714           | .001251          | 044831             |
| 45 | 015251             | 033700            | .036407           | 011159           | 000601           | 048202             |
| 46 | 010471             | 034504            | .028714           | 009337           | .001857          | 042201             |
| 47 | 003921             | 032895            | .024565           | 006726           | .008557          | 030501             |
| 48 | 000102             | 032791            | .020709           | 005524           | .010147          | 021344             |
| 49 | .004116            | 027121            | .012479           | 005998           | .006482          | 018421             |
| 50 | .005817            | 014187            | .003532           | 016699           | .001159          | 022661             |
| 51 | .011511            | 000552            | 001111            | 028816           | 003195           | 030581             |
| 52 | .018370            | 004668            | 006051            | 032286           | 009854           | 033537             |
| 53 | .026771            | 010368            | 016371            | 027728           | 011529           | 028740             |
| 54 | .034389            | 009871            | 024268            | 017566           | 010626           | 025417             |
| 55 | . 035405           | 003432            | 027239            | 008866           | 006014           | 021010             |
| 56 | .031495            | .004168           | 026786            | .003540          | 001903           | 006961             |
| 57 | .026161            | .015244           | 022074            | .017650          | 000923           | .011416            |
| 58 | .030634            | .029254           | 026015            | .035173          | 001519           | .032707            |
| 59 | .034706            | .034547           | 029785            | .048881          | .000788          | .046144            |
| 60 | .031036            | .031831           | 024425            | .045705          | .004001          | .043909            |
|    |                    |                   | ool.              |                  |                  |                    |

RUN NO. 85C 40M 11-16-62 1358-1503 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

| м        | U                   | ٧                  | W                    | T                    |
|----------|---------------------|--------------------|----------------------|----------------------|
|          | 0.11638<br>10E 01   | 0.10621<br>10E 01  | 0.56820              | 0.57448              |
| •        |                     | 106 01             | 10E 00               | 10E-02               |
| 0<br>1   | 1.000000            | 1.000000           | 1.000000             | 1.000000             |
| ž        | -863775             | .814614            | . 723999             | .850321              |
| 3        | •700996<br>•581977  | .588984            | •432257              | .649308              |
| 4        | •480692             | .430767<br>.327386 | • 249048<br>• 136652 | .499051<br>.400191   |
| 5        | .389849             | .247140            |                      |                      |
| 6        | .304169             | .171983            | •068161<br>•020867   | .322399              |
| 7        | -229917             | .099954            | 014917               | •247782<br>•179025   |
| 8        | .176745             | .035500            | 038861               | .123313              |
| 4        | .125619             | 009633             | 070280               | .069358              |
| 10<br>11 | .075598             | 053852             | 092990               | •023036              |
| 12       | •028939<br>- 017037 | 089591             | 103315               | 015387               |
| 13       | 017837<br>051033    | 106181             | 123998               | 036759               |
| 14       | 080751              | 113459<br>123635   | 134738               | 054576               |
| 16       |                     | **123033           | 116022               | 075074               |
| 15<br>16 | 122906              | 133927             | ~. 103605            | 099857               |
| 17       | 161963<br>184853    | 140340             | 089925               | 116165               |
| 18       | 205825              | 141517             | 083915               | 130526               |
| 19       | 222801              | 147702<br>163891   | 087810               | 146836               |
| 30       | _                   | -102041            | 097973               | 171370               |
| 20<br>21 | 245073              | 179753             | 106131               | 194170               |
| 22       | 273095              | 198126             | 114010               | 213611               |
| 23       | 294896<br>302164    | 207132             | 126621               | 226334               |
| 24       | 310682              | 217236             | 131618               | 236734               |
| 25       |                     | 226860             | 117646               | 238108               |
| 26       | 319319              | 229609             | 093580               | 232956               |
| 27       | 318528<br>307990    | 226711             | 084816               | 226127               |
| 28       | 289117              | 208158<br>184158   | 097820               | 216703               |
| 29       | 280351              | 146212             | 119041<br>122083     | 210524<br>199410     |
| 30       | 267142              | 103567             | - 094470             |                      |
| 31       | 238763              | 063268             | 086478<br>041443     | 183460               |
| 32       | 209589              | 038717             | 014885               | 163327               |
| 33       | 182269              | 019225             | 013091               | -•143596<br>-•135801 |
| 34       | 158820              | 013670             | 017159               | 139069               |
| 35       | 142992              | 006871             | 002378               | 141494               |
| 36       | 128645              | 013271             | .004289              | 141436<br>145131     |
| 37<br>38 | 117148              | 025470             | .010638              | 149497               |
| 39       | 103684              | 036091             | .006542              | 143236               |
|          | 083346              | 031947             | 008568               | 114742               |
| 40       | 065224              | 014942             | 012453               | 078434               |
| 41       | 052659              | 002468             | 001508               | 051286               |
| 42       | 041540              | .001893            | .006637              | 023267               |
| 44       | 020354<br>.006619   | .011161            | .001801              | .006147              |
|          |                     | .015012            | 005974               | .033466              |
| 45       | .028614             | .018267            | 001835               | .059560              |
| 46<br>47 | -041732             | .031818            | 004779               | .084894              |
| 48       | 049564              | .056224            | 020964               | .113015              |
| 49       | •060287<br>•069509  | .072577            | 026047               | .133411              |
| F.0      |                     | •079739            | 021152               | .137493              |
| 50<br>51 | •071857<br>•069495  | .076892            | 012775               | -136571              |
| 52       | .068485             | •071237<br>•068347 | 001136               | •140250              |
| 53       | -068577             | .057109            | •009700              | .145763              |
| 54       | .070898             | .037367            | •009433<br>•002170   | •139996<br>•121452   |
| 55       | .074901             | .023431            | 012905               |                      |
| 56       | •076330             | .015476            | 012905               | .104094              |
| 57       | .077346             | .007137            | .001568              | • 084888<br>• 065673 |
| 58<br>50 | .078939             | 007389             | .019539              | •065473<br>•045069   |
| 59       | •075315             | 026726             | .035074              | .021330              |
| 60       | .062968             | 039680             | .031316              | 003627               |
|          |                     | 205                |                      |                      |

RUM NC. 85C 40M 11-16-62 1358-1503 EST 6. PCINT RUNNING MEAN, NO BLOCK AVERAGING

| COSPECTRU | М | ۱ |
|-----------|---|---|
|-----------|---|---|

| K              | U,V      | U,W       | U, T                                    | V, W                                    | V.T         | W.T      |
|----------------|----------|-----------|---|---|-------------|----------|
|                | 10E-01   | 10E-01    | 10E-02                                  | 10E-02                                  | 10E-02      | 10E-02   |
| 0              | 013569   | 050109    | 066994                                  | . 242647                                | 096214      | 001301   |
| ī              | .151640  | 582012    | 731494                                  | .463918                                 | 788909      | .107947  |
| 2              | .184756  | 673578    | 726159                                  | 175952                                  | 942122      | .143082  |
| 3              | .014390  | 584708    | 414835                                  | 578200                                  | 892510      | .115905  |
| 4              | 037455   | 355421    | 133940                                  | 572181                                  | 559118      | .067264  |
| •              |          | 1333421   | • | .,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | • >> > 1.10 | *******  |
| 5              | .039696  | 230243    | 125263                                  | 082638                                  | 377572      | .026158  |
| 6              | 007373   | 185157    | 108297                                  | .031211                                 | 296287      | 002944   |
| 7-8            | 009910   | 177062    | 070825                                  | 049064                                  | 292334      | 000240   |
| 9-11           | 028572   | 061434    | 006230                                  | . 159451                                | 134081      | .011310  |
| 12-15          | .012914  | 044095    | 013354                                  | 226120                                  | 090494      | .021771  |
|                |          |           |   |   |             |          |
| 16-2C          | .003112  | 027116    | .001721                                 | 091677                                  | 073507      | .007473  |
| 21-27          | .00776B  | 018268    | 003735                                  | 005857                                  | 048002      | 004318   |
| 28-36          | 002322   | 005075    | .000576                                 | 032325                                  | 021245      | 000379   |
| 37-47          | .001852  | 001415    | 000417                                  | 035217                                  | 011927      | 000183   |
| 48-6C          | .000438  | 000678    | 000331                                  | 013144                                  | 008387      | 000813   |
|                |          |           |   |   |             |          |
| QUADRATURE     | SPECTRUM |           |   |   |             |          |
| K              | U,V      | U.W       | U, T                                    | V.W                                     | V, T        | W, T     |
|                |          |           | •                                       |   |             |          |
|                | 10E-01   | 10E-01    | 10E-02                                  | 10E-02                                  | 10E-02      | 10E-03   |
|                |          |           | 1.202.74                                | -911.2.0                                |             |          |
| 1              | 125043   | 075949    | 028542                                  | 514716                                  | 102865      | .048975  |
| 2              | 023410   | 066046    | 083589                                  | 655385                                  | 114765      | -254912  |
| 3              | .115271  | 111629    | 128405                                  | 208004                                  | 098187      | .425292  |
| 4              | . 180652 | 113424    | 158650                                  | .686049                                 | 040741      | .724600  |
| 5              | .092692  | 070466    | 133041                                  | .445526                                 | 037865      | •539200  |
| 6              | 023354   | 009398    | 058132                                  | 094601                                  | 077528      | .203668  |
| 7-8            | .021251  | .018273   | 050642                                  | .420816                                 | 056919      | .407096  |
| 9-11           | .023026  | 631182    | 025117                                  | .159841                                 | 016259      | .034012  |
| 12-15          | 001678   | 010704    | 006130                                  | .019135                                 | 016848      | 019420   |
| 16-20          | .007193  | 005523    | 008871                                  | 051112                                  | 012563      | 017124   |
| 10-20          | .001273  | •00,772.3 | .000011                                 | *******                                 | .012,00     |          |
| 21-27          | 000537   | .000964   | 003348                                  | .023910                                 | 005464      | .019909  |
| 28-36          | .001854  | .002483   | 003418                                  | 007037                                  | 001361      | 020244   |
| 37-47          | .000264  | .000085   | 000821                                  | .024211                                 | 001490      | 009426   |
| 4860           | .001123  | 000003    | 000666                                  | 008216                                  | 000833      | 004352   |
|                |          |           |   |   |             |          |
| POWER SPEC     | TRUM     |           |   |   |             |          |
| K              |          | U         | ٧                                       | 1                                       | W           | T        |
| •              |          | •         | •                                       |   | •           | •        |
|                | 105      | 00        | 10E 00                                  | 10E                                     | -01         | 10E-02   |
|                | 100      | . 50      | 101 00                                  | 100                                     | <b>V</b> 1  | 105-05   |
| 0              | .01      | 9490      | .013308                                 | • 02                                    | 9467        | .011596  |
| 1              |          | 9235      | .117220                                 | • 35                                    | 7105        | .091886  |
| 2              | .24      | 3229      | .148639                                 | . 48                                    | 4061        | .101247  |
| 2              | .20      | 4158      | .155851                                 | - 56                                    | 3636        | .085633  |
| 4              | .10      | 3723      | .104413                                 | - 46                                    | 0721        | .050157  |
|                |          |           |   |   |             |          |
| 5              |          | 2586      | .068234                                 |   | 1253        | .037539  |
| 6              |          | 4323      | .062425                                 |   | 9470        | .028688  |
| 7-8            |          | 3700      | .056471                                 |   | 5998        | .025804  |
| 9-11           |          | 5319      | .025230                                 |   | 4504        | .013278  |
| 12-15          | .01      | 5234      | .019728                                 | . 16                                    | 6078        | .009613  |
| 16-20          | .00      | 9440      | .014893                                 | - 10                                    | 4791        | .006935  |
| 21-27          |          | 7307      | .009879                                 |   | 0759        | .004352  |
| 28-36          |          | 14436     | .005186                                 |   | 6667        | .002241  |
| 28-30<br>37-47 |          | 2941      | .003262                                 |   | 0200        | .001247  |
| 48-60          |          | 11661     | .003261                                 |   | 0012        | .000835  |
| a o u          | .00      |           | .002401                                 | . 021                                   | VV14        | • 000033 |

RUN NO. 85C 40M 11-16-62 1358-1503 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

| M         | U,V               | U, W     | U, T     | <b>4</b> ,W | V , T    | WeT     |
|-----------|-------------------|----------|----------|-------------|----------|---------|
|           | 0 11050           | 0.62935  | 0.10359  | 0.50040     | 0.82362  | 0.43377 |
|           | 0.11950<br>10E 01 | 108 00   | 10E 00   | 10E 00      | 10E-01   | 10E-01  |
| •         | - 010013          | - 540020 | - 405235 | .073176     | - 700031 | 111547  |
| o,        | 010913            | 560828   | 495235   |             | 708921   | -111547 |
| 1         | 018649            | 244951   | 363398   | .124421     | 365749   | -043087 |
| 2         | 046378            | 038608   | 176379   | .102310     | 125618   | 026818  |
| 3         | 065927            | .048195  | 015904   | .004491     | .014569  | 001758  |
|           | 036124            | .115151  | .038197  | 038562      | .156447  | 010374  |
| 5         | -047150           | .068196  | .017010  | 079671      | .139706  | .039237 |
| 6         | .061819           | .046081  | .032212  | 134764      | .205122  | .066795 |
| 7         | .029779           | .057683  | .083631  | 045878      | .242652  | .008866 |
| 8         | 008671            | .058370  | .124204  | .015483     | .121579  | 038986  |
| 9         | -031020           | .069413  | .118916  | .069282     | 011882   | 108222  |
| 10        | .045073           | .062995  | .109429  | .090081     | 067300   | 107716  |
| 11        | .067030           | .021824  | .102099  | .034464     | 105830   | 051338  |
| 12        | .090439           | .009699  | .069549  | 047336      | 060706   | .011187 |
| 13        | .017979           | 036291   | .097244  | 027406      | .024238  | .025131 |
| 14        | 004199            | .012481  | .077435  | 070502      | .022537  | .043006 |
| 15        | 001012            | .078917  | .026541  | 069009      | .045395  | .056779 |
| 16        | .008392           | .070442  | 011847   | 051476      | .020647  | .054252 |
| 17        | - 039394          | 003108   | 052911   | -,122136    | 030135   | .094579 |
| 18        | 028362            | 082511   | 008568   | 003551      | .057103  | .026481 |
| 19        | 127462            | 049028   | .043600  | .056771     | .052695  | 017129  |
| 20        | 157033            | 020546   | .082384  | .060936     | .047483  | 034813  |
| 21        | 182738            | .039841  | .106743  | . 066065    | .074584  | 066317  |
| 22        | 115422            | .040276  | .094182  | .020974     | .061286  | 038452  |
| 23        | 045787            | .009533  | .047605  | 026970      | .043638  | 009460  |
| 24        | 008462            | .039060  | .003201  | .014641     | .032349  | 033584  |
| 25        | .048212           | .057103  | 090132   | 024195      | 042592   | .031905 |
| 26        | .138587           | .021478  | 187692   | 036885      | 120927   | .036559 |
| 27        | .178918           | .031140  | 205580   | .003508     | 155436   | .008852 |
| 28        | .137376           | 045212   | 140409   | . 045062    | 170826   | 011464  |
| 29        | .078361           | 137211   | 045917   | .014930     | 134612   | .007105 |
| 30        | .001275           | 079758   | .044296  | .054663     | •019191  | 029537  |
| COSPECTRA | JM                |          |          |             |          |         |
| K         | U, V              | U+W      | U, T     | V, W        | V.T      | W,T     |
|           | 10E-01            | 10E-01   | 10E-02   | 10E-01      | 10E-02   | 10E-03  |
| 0         | .002784           | 009716   | 036546   | .000623     | 030306   | .059442 |
| 1         | .087929           | 137048   | 522723   | .052527     | 266300   | .163107 |
| 2         | 119986            | 198812   | 700004   | .079294     | 308609   | .216216 |
| 3         | 341691            | 292541   | 788912   | .064393     | 437964   | .735671 |
| 4         | 067828            | 308895   | 702258   | .047509     | 707556   | .843154 |
| 5         | .017283           | 283162   | 420212   | .152308     | 825783   | 256374  |
| 6         | 082518            | 291356   | 291529   | . 225550    | 707070   | 867788  |
| 7         | .048251           | 234090   | 403141   | .116710     | 473461   | 142023  |
| 8         | 001424            | 189558   | 289881   | .005501     | 179681   | .494717 |
| 9-11      | -163821           | 225847   | 282981   | 057514      | 191769   | .809617 |
| 12-14     | .021203           | 112172   | 102815   | .002720     | 209391   | .078434 |
| 15-21     | 022575            | 082065   | 016695   | 033942      | 101151   | .229275 |
| 22-30     | 006436            | 079172   | 029033   | 003837      | 113734   | .019859 |
|           |                   |          |          |             |          |         |

RUN NO. 85C 40M 11-16-62 1358-1503 EST 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

| NORMALIZED | QUADRATURE | COVARIANCE |
|------------|------------|------------|
|------------|------------|------------|

| H         | U.V        | U, W                                    | U,T                                     | V.W     | V, T     | W+T     |
|-----------|------------|---|---|---------|----------|---------|
|           | 0.11950    | 0.62935                                 | 0.10359                                 | 0.50040 | 0.82362  | 0.43377 |
|           | 10E 01     | 10E 00                                  | 10E 00                                  | 10E 00  | 10E-01   | 10E-01  |
|           |            |   |   |         |          | •••     |
| 1         | 048729     | 046692                                  | 002820                                  | 034105  | 064734   | .007932 |
| 2         | 129011     | 018089                                  | .048989                                 | 091401  | 087245   | 048925  |
| 3         | 108452     | 051190                                  | .024348                                 | 058133  | 080357   | 052721  |
| 4         | 108019     | 057183                                  | .046594                                 | 047093  | 074615   | 047510  |
| 5         | 124154     | 023675                                  | .071876                                 | 109577  | 089453   | 100825  |
|           |            |   |   |         |          |         |
| 6         | 098958     | .019061                                 | .058963                                 | 039330  | 068192   | 024734  |
| 7         | 116504     | .025132                                 | .073318                                 | 074486  | 062324   | 036686  |
| 8         | 093777     | .031792                                 | .044150                                 | 073818  | 043452   | 020795  |
| 9         | 020328     | .014674                                 | 022475                                  | .022736 | 021880   | .061119 |
| 10        | 002142     | .014131                                 | 023851                                  | .054169 | 007426   | .048280 |
|           |            |   |   |         |          |         |
| 11        | .021000    | .057920                                 | 053186                                  | .054245 | .011453  | .092677 |
| 12        | .043771    | 013004                                  | 039854                                  | .018489 | .024535  | .032123 |
| 13        | .056359    | 038638                                  | 036384                                  | .057660 | .020386  | .026114 |
| 14        | .067576    | .033826                                 | 042965                                  | .018120 | « 024696 | .028500 |
| 15        | .087014    | .049970                                 | 044557                                  | .045568 | . 042561 | .058667 |
| 16        | .071264    | .051227                                 | 040198                                  | .078143 | .030840  | .074655 |
| 17        | .045315    | .026040                                 | 014788                                  | .029385 | .023776  | .025198 |
| is        | .041582    | 005428                                  | 013975                                  | .002859 | 000150   | 034411  |
| 19        | 018981     | 032620                                  | .004093                                 | 099085  | 010917   | 072324  |
| 20        | 021004     | 018651                                  | 002956                                  | 041296  | 005742   | 044339  |
|           | .02100     | *************************************** | *************************************** | 1011210 | 1003142  | .011337 |
| 21        | 003568     | 012209                                  | .012912                                 | 025910  | -001182  | 016106  |
| 22        | 011021     | -007044                                 | .040671                                 | 038978  | .003960  | 033475  |
| 23        | .014399    | .007393                                 | .027934                                 | .008231 | .012045  | .002319 |
| 24        | .025258    | 002761                                  | .008888                                 | .037387 | .022352  | .039416 |
| 25        | .035563    | .022102                                 | .007255                                 | .049076 | .030475  | .036670 |
|           |            |   |   |         |          |         |
| 26        | .008902    | .027989                                 | .017757                                 | 002000  | • 022052 | .020053 |
| 27        | 019347     | 000286                                  | .024325                                 | .018323 | 029608   | 002504  |
| 28        | 075963     | .012141                                 | .024793                                 | 039878  | 061474   | 026755  |
| 29        | 032623     | 012525                                  | 008093                                  | 061678  | 070658   | 064864  |
| 30        | 007408     | 045406                                  | 005209                                  | 028759  | 049490   | 053683  |
| OHABBATHS | C          |   |   |         |          |         |
| QUADRATOR | E SPECTRUM |   |   |         |          |         |
| K         | U.V        | U,W                                     | U,T                                     | V, W    | V,T      | W, T    |
|           |            |   |   |         |          |         |
|           | 10E-01     | 10E-02                                  | 10E-02                                  | 10E-01  | 10E-02   | 10E-02  |
| 1         | 193074     | .512323                                 | 003300                                  | 027269  | 131379   | .034181 |
| 2         | 437803     | .000316                                 | .123890                                 | 077527  | 206432   | 017966  |
| 3         | 630150     | 595477                                  | .278311                                 | 162773  | 268937   | 105301  |
| 4         | 423694     | 792135                                  | .207718                                 | 149393  | 204881   | 122883  |
| 5         | 098189     | 667464                                  | .030832                                 | 036775  | 086579   | 042058  |
|           |            |   |   |         |          |         |
| 6         | 026296     | 858683                                  | 052962                                  | 001424  | 042374   | 003846  |
| 7         | 068419     | 707808                                  | 077727                                  | 005893  | 051666   | .006952 |
| 8         | 031558     | .057959                                 | 057906                                  | .022466 | 029889   | .046194 |
| 9-11      | 080692     | .009080                                 | .029734                                 | 042507  | 039542   | 004060  |
| 12-14     | 001832     | .238793                                 | 003377                                  | .002003 | 027115   | .016189 |
| 15-21     | .025872    | 348660                                  | 016988                                  | .009113 | 006627   | .011001 |
| 22-30     | .032688    | 110504                                  | 039896                                  | .003937 | 003681   | .005021 |
| 22 30     | .072000    |   |   |         |          | -007021 |

RUN NO. 85C 40M 11-16-62 1358-1503 EST 301 PBINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

| М            | U        | v                  | W                 | T                        |
|--------------|----------|--------------------|-------------------|--------------------------|
|              | 0.15029  | 0.95012            | 0 24254           |                          |
|              | 10E 01   | 10E 00             | 0.26354<br>10E 00 | 0.71396<br>10E-02        |
| 0            | 1.000000 | 1.000000           | 1.000000          |                          |
| 1            | .612408  | .483634            | •108570           | 1.000000                 |
| 2            | .246257  | .186847            | _                 | • 590208                 |
| 3            | .030102  | .033086            | 016579            | - 268855                 |
| 4            | 077709   | 122525             | 088809            | .028232                  |
| _            |          |                    | 136195            | 175776                   |
| 5<br>6       | 086625   | 158224             | 147977            | 167889                   |
|              | 110106   | 220866             | 028928            | 274216                   |
| 7            | 143514   | 237159             | 036345            | 343251                   |
| 8            | 166645   | 179964             | 007809            | 200804                   |
| 9            | 213004   | 095650             | 027642            | 053544                   |
| 10           | 217542   | 073022             | 057560            | 020/27                   |
| 11           | 213100   | 036489             | .013378           | -038637                  |
| 12           | 201222   | 029911             | .033096           | .086537                  |
| 13           | 152598   | 108880             | 063025            | .023018                  |
| 14           | 164555   | 049035             |                   | 039642                   |
| 1.5          |          | ********           | .048716           | 029825                   |
| 15<br>16     | 131950   | 066208             | 031866            | 023388                   |
|              | 064242   | 016983             | 135063            | 005743                   |
| 17           | .025146  | .109459            | .008660           | •014595                  |
| 18           | •106576  | -005936            | .070149           |                          |
| 19           | -100583  | .025451            | 007726            | 066842<br>066523         |
| 20           | •057126  | 0225/1             | 1                 |                          |
| 21           | •036248  | .033541            | •008250           | 076336                   |
| 22           | 006930   | •044631            | 059104            | 132149                   |
| 23           |          | .036393            | 022124            | 133189                   |
| 24           | 018116   | 003534             | .072940           | 079328                   |
|              | 018133   | 041165             | 016875            | 033515                   |
| 25           | -027918  | .004797            | - 105/0/          |                          |
| 26           | .123439  | .034330            | 105606            | .090239                  |
| 27           | .125646  | .070525            | 089125            | <ul><li>195846</li></ul> |
| 28           | -105856  | •123063            | 072072            | -198910                  |
| 29           | .123386  | .109831            | 042045            | •193280                  |
| 20           |          | *10,031            | . 226944          | .098733                  |
| 30           | •060047  | 085578             | .058822           | 048603                   |
| DOUES        |          |                    |                   |                          |
| POWER SPECTA | CM       |                    |                   |                          |
| K            | U        | V                  | W                 | -                        |
|              |          |                    |                   | T                        |
|              | 10E 00   | 10E 00             | 105-01            |                          |
| •            |          |                    | 10E-01            | 10E-03                   |
| 0            | .003910  | .004615            | .005065           | 040363                   |
| 1            | .101328  | .042438            | .059256           | • 060253                 |
| 2            | -177491  | .070094            | .073276           | •471664                  |
| 3            | •223976  | .106172            | .102453           | •531768                  |
| 4            | .161535  | .107510            | .124293           | .709384                  |
| 5            | 100105   |                    | • 127273          | •977824                  |
| 6            | -102405  | •094522            | .146272           | .989349                  |
| 7            | -108860  | .085486            | .161979           | .777678                  |
| 8            | .108101  | .064579            | .148354           | •545260                  |
|              | •081723  | .037561            | .138352           | • 229576                 |
| 9-11         | .072919  | .032665            | . 126835          | •217707                  |
| 12-14        | .039238  | .028679            |                   |                          |
| 15-21        | .021365  | •028879<br>•021858 | .082871           | •221988                  |
| 22-30        | .018659  |                    | •114793           | .083000                  |
|              | ,        | •020262            | •127657           | .121243                  |

RUN NO. 85C 16M 11-16-62 1358-1503 EST RUN NO. 85C 40M 11-16-62 1358-1503 EST 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

## COHERENCE WITH QUADRATURE

| K           | U       | ٧       | W        | т       |
|-------------|---------|---------|----------|---------|
|             | 10E 00  | 10E 00  | 10E 00   | 10E 00  |
| 0           | .790317 | .673638 | •620846  | .784798 |
| 1           | .652801 | .762351 | .656153  | .702043 |
| 2           | .533785 | .710239 | .644417  | .582459 |
| 2<br>3<br>4 | .427473 | .677346 | .647536  | .487085 |
| 4           | -351444 | .622897 | .668836  | .447655 |
| 5           | .281963 | •552636 | .616969  | .460791 |
| 6           | .083107 | .518857 | .487458  | .371537 |
| 7-8         | .093739 | .405473 | .365153  | .253891 |
| 9-11        | .085532 | .229538 | . 340266 | .201500 |
| 12-15       | .115664 | .292004 | . 314982 | .190824 |
| 16-2C       | .097650 | -281620 | .202711  | .274104 |
| 21-27       | .120203 | .191466 | .156580  | -203928 |
| 28-36       | .061114 | .084696 | .090762  | .080525 |
| 37-47       | .105115 | .154404 | .091771  | .089988 |
| 48-60       | .085751 | .080282 | .118838  | .089349 |

#### 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

## COHERENCE WITH QUADRATURE

| К      | U       | V       | W        | Ť       |
|--------|---------|---------|----------|---------|
|        | 10E 00  | 10E 00  | 10E 00   | 10E 00  |
| 0      | .897116 | .832878 | .869118  | .927990 |
| 1      | .902718 | .845553 | .634684  | .878690 |
| 2      | .912717 | .855377 | .514357  | .823515 |
| 2 3    | .915441 | .854790 | .554418  | .783482 |
| 4      | .881528 | .812632 | .641154  | .842523 |
| 5      | .811984 | .816379 | • 574027 | .860574 |
| 6      | .845438 | .849515 | .630380  | .831044 |
| 6<br>7 | .796842 | .827712 | .705993  | .798643 |
| 8      | .608804 | .794458 | .698077  | .688251 |
| 9-11   | .501451 | .719658 | . 753769 | .695302 |
| 12-14  | •452893 | •682651 | .615926  | .405997 |
| 15-21  | .355258 | .558519 | .671214  | .438688 |
| 22-30  | .264778 | .302641 | .536758  | .445377 |

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| _     |  | Division, B  | ort Hu          | uachuca, Arizona                |  |  |  |
| 1 1 3 | I. ABSTRACT  |  |                 |                                 |  |  |  |

This volume contains the data summaries for Runs 78A through 85C. Vertical profiles of mean wind speed, air temperature, and soil temperature are presented in Section I. Section I also includes estimates of terms of the heat-budget equation. Turbulence statistics are presented in Section II. For a description of the field experiments and the data-processing procedures, reference should be made to Volume I of this series.

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| Data Summaries        |           |      |      |    |      |       |
| Vertical Profiles     |           |      |      |    |      |       |
| Turbulence Statistics |           |      |      |    |      |       |
| Mean Wind Speed       | 1         |      |      |    |      |       |
| Air Temperature       | ,         |      |      |    |      |       |
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